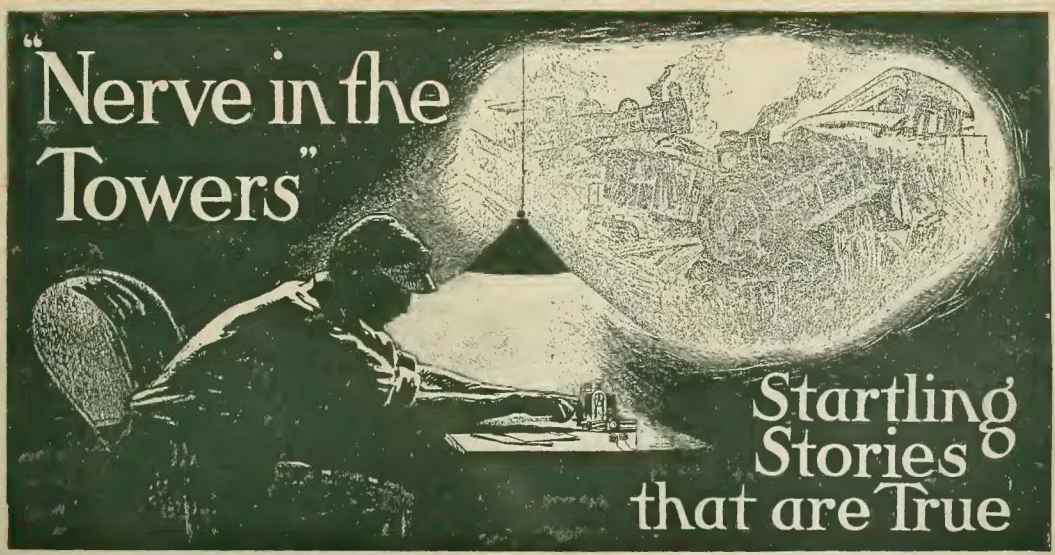
PRICE 10 CENTS BY THE YEAR $1.00

INTERSTATE COMMERCE
AUG 10 1910

THE RAILROAD MAN'S MAGAZINE



SEPTEMBER

THE FRANK A MUNSEY COMPANY NEW YORK AND LONDON

Old Times and New

In old times, a soft skin and a fine complexion were accounted among the leading essentials of beauty; and so they are today. They knew in old times that the kind of beauty that is natural is a thousand times more admired than beauty that is artificial; and they know it today also.

The great difference between old times and now in this matter of beauty is this: in old times—that is, before 1789—they had no

Pears' Soap

to afford natural aid to natural beauty, whereas today PEARS is here, making the preservation and improvement of complexion, and of skin health and skin beauty generally, an easy daily habit—just the habit of the daily use of PEARS, that is all. This is one great reason why there are so many more beautiful women to be seen today than ever there were.

The best beautifying forces of both old times and new are united in Pears

bringing out the natural loveliness of complexion which is woman's chief charm.

OF ALL SCENTED SOAPS PEARS' OTTO OF ROSE IS THE BEST.

"All rights secured."

From the greatest stars of grand opera clear through to "Bones" and "Tambo" of the minstrel show—on the Victor.

In between there's charming vaudeville sketches, band and orchestra music, symphonies, special dance music, comic songs, ballads, sacred selections—everything that the heart may desire.

And all played and sung in the world's best way, as the Victor alone can play them.

The proof is in the hearing. Any Victor dealer will gladly play any Victor music you want to hear.

And there's a Victor as low as $10. Others up to $250. Victor Records, 60 cents to $7. Easy terms can be arranged with your dealer, if desired.

The Victor Record catalog lists more than 3000 selections—both single- and double-faced records. Same high quality—only difference is in price. Buy double-faced if the combination suits you.

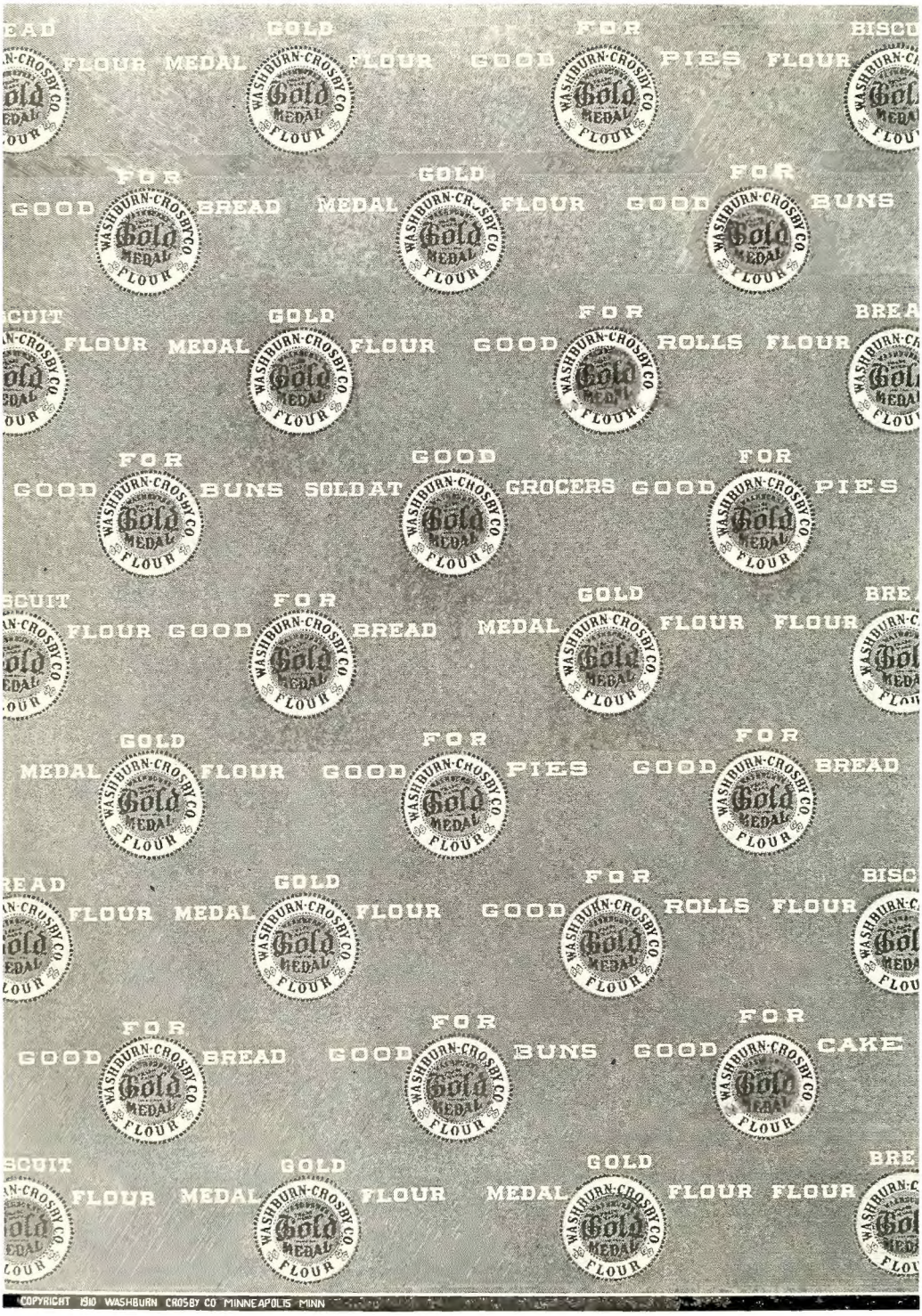
And be sure to hear the Victor-Victrola

Victor Talking Machine Co., Camden, N. J., U. S. A.

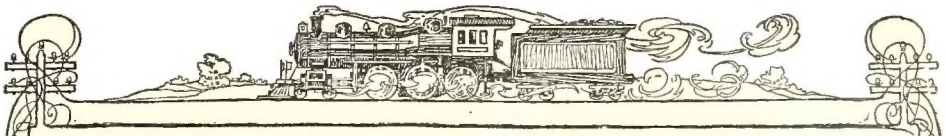
Berliner Gramophone Co., Montreal, Canadian Distributors.

To get best results, use only Victor Needles on Victor Records.

New Victor Records are on sale at all dealers on the 28th of each month



THE FOUNDATION OF SUCCESSFUL BAKING



THE RAILROAD MAN'S MAGAZINE

CONTENTS FOR SEPTEMBER

SERIALS.

On Short Time. Part I.	Horace H. Herr	603
The Man Who Wasn't Game. Part III.	William S. Wright	657
President of the Line. Part V.	John Wellsley Sanders	705
A Heart of the North. Part VI.	George Van Schaick	749

SHORT STORIES.

B. B., the Weather Wizard. (Illustrated.)	Emmet F. Harte	586
The Goat Degree	Augustus Wittfeld	622
The Engine's Leap	Merritt Crawford	641
Coffin Varnish	Cy Warman	655
When the Boomer Beat It	W. H. Wilcox	677
Beyond the Drifts. (Illustrated.)	J. R. Stafford	692
A Corner in Coyotes. (Illustrated.)	R. K. Culver	712
Billy's Unavoidable Delays	George Foxhall	722
When O'Donnell Stood Pat. (Illustrated.)	Marion Patten Lindsley	738

SPECIAL ARTICLES.

Joys of the Railroad Joker. (Illustrated.)	Richard Maxwell Winans	577
Why the Steam Locomotive Will Stay	Robert H. Rogers	595
Pioneers of the Canadian Pacific	John Walters	613
Observations of a Country Station-Agent. No. 28. (Illustrated.)	J. E. Smith	625
Nerve in the Tower. True Story. No. 48. (Illustrated.)	Peter Mulligan	634
Told in the Roundhouse. (Illustrated.)	Walter Gardner Seaver	647
Pinkerton Days on the Lake Shore. (Illustrated.)	John H. Paine	665
The Best-Tailored Individual on the Line	Robert Fulkerson Hoffman	673
Told in the Smoker	Olin Crawford	687
Old-Timer Tales. No. 7. Small Beginnings of Big Railroads	Arno Dosch	698
The Riddle of the Gage	Charles Frederick Carter	717
Ten Thousand Miles by Rail. No. 4. Some Railroad Girls I've Met. (Illustrated.)	Gilson Willets	726
With the Boys of the Northwest	M. G. Roche	745

VERSE AND DIVERSE.

Beyond the Limit. (Poem.)	Bessie Bardsley	594
At a Rural Ticket-Window	George Augustus Fulton	602
By the Light of the Lantern		682
The Railroad Man's Brain Teasers		758

MISCELLANEOUS.

Tree Blocks Trains Two Days	593	Disinfecting Passenger Cars	691
Storm-Guard for Engineers	601	The Goats of the U. P.	697
An Odd Locomotive	612	An Engineer Centenarian	711
Preserving Railroad Ties	621	A Country with One Railroad	716
A Car with a Fireplace	664	International Railroad Board	737
Moving a Village by Rail	664	New Mallet Compound	757
Railroad Fish Planting	672	Torpedo Block System	757

On the Editorial Carpet 759

ISSUED MONTHLY BY THE FRANK A. MUNSEY COMPANY.

175 Fifth Avenue, New York, and Temple House, Temple Avenue, E. C., London

FRANK A. MUNSEY, President. RICHARD H. TITHERINGTON, Secretary. CHRISTOPHER H. POPE, Treasurer.

Copyright, 1910, by The Frank A. Munsey Company

Entered as second-class matter, September 6, 1906, at the Post-Office, at New York, N. Y., under the Act of Congress of March 3, 1879.

Classified Advertising

In the Munsey Magazines

	Line Rate	
Munsey's Magazine	$2.50	Special Combination Rate $5.50
The Scrap Book	—	
The Argosy	$1.50	
The All-Story Magazine	1.00	
The Railroad Man's Magazine	.75	
The Cavalier	.50	
October Railroad Man's Mag. Forms Close August 20th.	$6.25	

A DEPARTMENT maintained for the small advertiser and for the convenience of the reader in quickly locating a wide variety of necessities for the home, the office, the farm, and for the man or woman who seeks business opportunities. There is virtually no want that may arise which cannot be supplied in these classified advertising pages.

Send for interesting booklet on Classified Advertising.

AGENTS & SALESMEN WANTED

LIVE AGENTS WANTED—Hustlers to handle our attractive combination package of soap and toilet articles—$1.25 premium with every 50c sale. Our Texas agent sold 100 boxes in one and a half days—profit $35.00. Write today for illustrated catalogue and profit-sharing plan. DAVIS SOAP COMPANY, 46 Union Park Ct., Chicago.

AGENTS—You can have *Free* our illustrated Fall catalogue, containing everything you want to handle, also dress goods samples *Free*. Write today. JOSEPH T. SIMON & Co., 656 Broadway, New York.

AUTOMATIC POTATO PEELER. Peels 24 potatoes perfectly in one minute. Milwaukee Fruit Jar Holder and Cover Wrench. The great fruit canning tools. 500 other red hot sellers. Beautiful sample case with 40 samples of best sellers sent free. Big profits. Geo. C. Edgren Co., Milwaukee, Wis.

AGENTS earn big money weekly selling our new styles embroidered waist patterns, princess dresses, petticoats, art linens, drawn work, silk shawls and scarfs, etc. Catalogue free. J. GLUCK, 621 B'way, New York.

AGENTS—NOTICE! $30.00 weekly; 90 Big Money-Makers. Easy selling plans. Everybody buys. Anybody can sell. Biggest profits. Samples free to our agents. Send for catalogue. R. C. MILLER Co., Box 155, Muskegon, Mich.

$25 WEEKLY AND EXPENSES TO MEN AND WOMEN to collect names, distribute samples and advertise. Steady work. C. H. EMERY, MB 32, Chicago, Ill.

AGENTS—Most attractive proposition. Our incandescent kerosene mantle burners fit all lamps, 100 candle power light, 10 times brighter than gas. Prices defy competition. Samples free. Simplex Gaslight Co., Dept. M, 231 Park Row, N. Y.

TAILORING SALESMEN WANTED to take orders for our Guaranteed Made-To-Order Clothes. Suits—$10 up. No capital required. Write today for territory and complete equipment. Address WARRINGTON W. & W. MILLS, 173 Adams St., Department 359, Chicago, Ill.

AGENTS make big money selling our new gold letters for office windows, store fronts, and glass signs. Any one can put them on. Write today for free sample and full particulars. METALLIC SIGN LETTER Co., 413 N. Clark St., Chicago.

AGENTS CAN MAKE 500% PROFIT handling our Gold Window Letters, Novelty Signs, and Changeable Signs. 800 varieties. Unlimited demand. Catalogue free. SULLIVAN Co., 1232 Van Buren St., Chicago, Ill.

WANTED—Live Men, Postmasters, Mayors, Conductors, Foremen, etc., for highly paying agencies. BRITISH COLUMBIA LAND & TRADING Co., 1184 Ellis St., San Francisco, California.

$100 MONTHLY AND EXPENSES TO TRUSTWORTHY men and women to travel and distribute samples; big manufacturer. Steady work. S. SCHEFFER, Treas., MG 132, Chicago.

HELP WANTED

REPRESENTATIVES wanted in every locality to sell, on commission, stock of an exceptional money-making enterprise, about to pay heavy dividends. Liberal inducements to right men. Standard Securities Co., 225 Fifth Ave., N. Y.

WANTED—Local representatives to sell men's clothing on credit by largest credit clothing house in the world; no capital required; write for plan. MENTER & ROSENBLOOM Co., 603 Cox Bldg., Rochester, N. Y.

BUSINESS & CORRESPONDENCE SCHOOLS

WANTED—Railway Mail Clerks, Clerks at Washington, D. C., City Carriers and Post-office Clerks. Fall Examinations everywhere. Preparation free. Write immediately for schedule. Franklin Institute, Dept. W2, Rochester, N. Y.

BUSINESS OPPORTUNITIES

LEARN the truth about Mail Order Business before investing in "outfits." Important information and particulars, showing how to start M. O. business sent *free*. MAIL ORDER LIBRARY, Publicity Dept. M., 509 5th Ave., N. Y.

POPULAR SHEET MUSIC

SONG POEMS WANTED TO SET TO MUSIC.—Splendid contract guaranteed. Greatest offer ever made. Have written many hits. Honest and successful. R. A. BROWNE, 720 Sixth Ave., New York City.

SAVE ONE-HALF ON ALL YOUR POPULAR MUSIC. A postal will bring you our long list of all the popular and latest hits. SEMPLE MUSIC Co., 74 West Ave., Norwalk, Connecticut.

PHOTOGRAPHY

BROWNIE FILMS DEVELOPED 5c ROLL. All other sizes, 6 exposures 10c.; 12 exposures 15c. Expert developing and printing. Send for sample print and price list "R." NASSAU PHOTO Co., 53 Nassau St., N. Y.

"Pollard" finishing develops wonderfully clear, sharp detail in your negatives. First film, 6 exposures, developed free to new customers with individual advice. Sample print, prices, booklet "Film Faults" free for 2c. C. R. Pollard, Lynn, Mass.

Photographic—Finishing and Enlarging for the amateur photographer a specialty—Satisfactory results guaranteed. New list on request. American agts. for the celebrated Ross Lens. George Murphy, Inc., 57 East 9th St., New York.

MISCELLANEOUS

TOBACCO HABIT CURED OR NO COST. Harmless home treatment of roots and herbs. Sure, pleasant, permanent. Send your name quick. KING NI-KO 10, Wichita, Kansas.

TELEGRAPHY

TRAINING SCHOOL established 1907 by S. P. Railroad Co. Train Dispatchers in active service instruct students. Practical Shorthand Course by Mail—$20. S. P. Telegraph & Shorthand School, 543 Central Ave., Los Angeles, Calif.

TELEGRAPHY, both Morse and Wireless, taught quickly. R. R. train wire and complete wireless station in school. Big demand for operators. Living expenses earned. Correspondence courses if desired. Catalogs *free*. DODGE'S INSTITUTE, 9th St., Valparaiso, Ind. Established 1874.

PATENT ATTORNEYS

PATENTS THAT PROTECT AND PAY. Advice and books free. Rates reasonable. Highest references. Best results. WATSON E. COLEMAN, Patent Lawyer, 612 F St. N. W., Washington, D. C.

PATENT SECURED OR FEE RETURNED. SEND sketch for free report as to patentability. *Guide Book* and *What to Invent*, with valuable list of Inventions Wanted, sent free. *One Million Dollars* offered for one invention; $16,000 for others. Patents secured by us advertised free in World's Progress; sample free. VICTOR J. EVANS & CO., Washington, D. C.

STAMPS AND RARE COINS

WE BUY COINS AND STAMPS AND PAY PREMIUMS on many dates and varieties. Send for Free Booklet A. ROYAL MONEY & STAMP CO., 150 Nassau St., New York.

$7.75 Paid For Rare Date 1853 Quarters; $20 for a $½. Keep all money dated before 1880, and send 10c at once for New Illustrated Coin Value Book, 4x7. It may mean your fortune. CLARKE & CO., Coin Dealers, Le Roy, N. Y.

TYPEWRITERS

GENUINE TYPEWRITER BARGAINS. No matter what make, will quote you lower prices and easiest terms. Write for big bargain list and illustrated catalogue. L. J. PEABODY, 63 Minot Bldg., Boston, Mass.

Flash Like Genuine
DIAMONDS.
at 1/40 the cost—IN SOLID GOLD RINGS

Stand acid test and expert examination. We guarantee them. **See them first—then pay. Special Offer**—14k Tiffany ring 1 ct. $5.98. Gents ring 1 ct. $6.98. 14k Stud 1 ct. $4.86. Sent C.O.D. for inspection. **Catalog FREE**, shows full line. Patent ring gauge included, 10c. **The Baroda Co., Dept. A12 838 N. State St., Chicago**

KINDERGARTEN training is a necessity to future mothers—and an attractive profession for young women who wish to command a good salary.

KINDERGARTEN

Our many Courses of Study offer new and thorough Kindergarten training, and the higher Culture.

Let us send you pamphlets.

CHICAGO KINDERGARTEN COLLEGE
501, 1200 Michigan Boulevard - - Chicago

LEARN PLUMBING

A trade that will make you independent for life. **Hours Shorter—Pay Bigger—Demand Greater** than most any trade. You need no previous experience. Our practical methods enable you in a few months to hold position as skilled plumber or conduct your own business. Catalog sent free.

BIG PAY SHORT HOURS

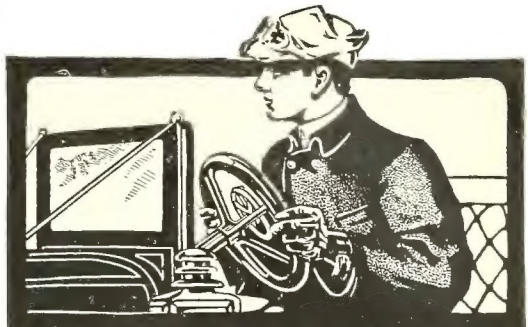
St. Louis Trades School
4418 Olive St. St. Louis, Mo.

VENTRILOQUISM

Taught Any Man or Boy

by Mail at Home. This is no special gift as you have supposed, but an art. I have taught thousands in all parts of the world. Cost small. Send today. 2-cent stamp for particulars and proofs.

O. A. SMITH, Room 1395—823 Bigelow St., PEORIA, ILL.



YOUNG MEN WANTED

EARN
$25.00 to $50.00 Weekly
IN AUTOMOBILE BUSINESS

Chauffeurs, Automobile Salesmen and Repairmen get big pay for pleasant work because the **demand for trained men exceeds supply.** We have taught hundreds (without mechanical ability) and we can teach **you** in ten weeks if you study a few hours a week. It is **interesting.** Our simple mail course guarantees thoro efficiency because it's **personal.** Ask our graduates who are earning $25.00 weekly or more in positions we obtained for them.

Send to-day for first lesson—It's free.

Chauffeurs and competent men supplied owners and garages.

Empire Auto. Institute, 104 Dake Bldg. Rochester, N. Y.
The Original Automobile School.

"HELP WANTED"
—Uncle Sam.

14,000 POSITIONS

As Railway Mail Clerks, Postoffice Clerks, City Mail Carriers, Clerks at Washington, D.C., and Internal Revenue Employees will be open this year to city and country residents alike. No political influence necessary. Common sense education sufficient and salaries range from

$800.00 to $1800.00 a Year for LIFE

No "layoffs" without pay, because of strikes, financial flurries or the whims of some petty boss. Excellent opportunities for quick advancement to Higher Government Positions. If you want immediate appointment, send **TODAY** for our schedule of dates and locations of Fall examinations near your home. Any delay means the loss of just so much time in preparing yourself for examination.

We Prepare Candidates Free.

SEND THIS COUPON

Franklin Institute
Dept. W 120, Rochester, N. Y.

This coupon, filled out as directed, entitles the sender to a free copy of our book, "Government Positions and How to Obtain Them," and to consideration for Free Coaching for the examination here checked.

...Railway Mail Clerk	[$800 to $1400]	...Customs Positions	[$600 to $1500]
...Postoffice Clerk	[$600 to $1200]	...Internal Revenue	[$700 to $1800]
...Postoffice Carrier	[$900 to $1200]	...Stenographer	[$600 to $1500]
...Rural Mail Carrier	[$500 to $900]	...Clerk in the Departments at Washington	[$500 to $1600]
...Bookkeeper	[$900 to $1400]		

Name.....

Address.....

Write Plainly

I Can Increase Your Earnings

No matter where you live or what your occupation or income may be, I can make you prosperous. If you want to earn more money—if you want to establish yourself in an independent business requiring no capital—send me your name and address on coupon below, (or a postal will do) and I will mail you, free, our **Big 62-Page Book**, fully explaining just how you can fit yourself to earn big money in the

Real Estate, Brokerage and Insurance Business

We have perfected a thoroughly practical, scientific method of teaching these big money making branches by mail. Our system is a positive success. It not only equips you fully on every point of Real Estate, Brokerage and Insurance, but also give you, free, a valuable course in Commercial Law. Our Free Book is of great interest to anyone, but is of vital importance to Clerks, Book Keepers, Salesmen, Agents, Solicitors and others who are ambitious to be in a good paying business of their own. Send no money, but merely your name and address on a postal or on the coupon below.

The International Realty Corporation
Successors to The Cross Co. and H. W. Cross Co.
4237 Manhattan Bldg., Chicago, Ill.

NAME .....

ADDRESS .....

OCCUPATION .....

IT WOULD COST more than $17,000 to send a post-card to the 1,700,000 and more homes that read "The Munsey Magazines" every month.

Advertisers who ***know*** are using this short-cut

Classified Advertising

	Rate per Line
Munsey's Magazine	$2.50
The Scrap Book	Free
The Argosy	$1.50
The All-Story Magazine	1.00
The Railroad Man's Magazine	.75
The Cavalier	.50
	$6.25

Special Combination Rate $5.50

Minimum 4 lines; Maximum 12 lines. Ten per cent discount for six consecutive insertions.

The Frank A. Munsey Company
175 Fifth Avenue, New York

The Munsey
For September

FROM OVER-SEAS:

"Munsey's Magazine" is one of the leading publications in America and Great Britain, though, naturally, its circulation in the Old Country is not equal to that in the New Land on the other side of the Atlantic. "The Munsey" is one of the biggest magazines published. It is a masterpiece of typographical and artistic work, and it is a pleasure to handle it. Its contents are of a most interesting character, the writers are in the front rank of their profession, and many of the best artists contribute matter to its pages.

—The Ayrshire Post.

A TRIBUNAL FOR ALL THE PEOPLE
By Isaac F. Marcosson

How the Public Service Commissions of New York have curbed corporate abuses and opened a forum for a discussion of the wrongs of the citizens.

THE PASSING OF THE CHESTNUT-TREE
By Bailey Millard

A remarkable story of the irresistible pestilence that is destroying one of the finest and most useful of American trees.

WHERE DAVID BELASCO WORKS
By Louis V. De Foe

A profusely illustrated description of the unique studio and art museum of America's most picturesque playwright-manager.

THE LOVE-STORY OF AARON BURR

At last America is represented in the "Famous Affinities Series," and in the account of Aaron Burr's romance we have one of the most powerful stories in this notable series.

The Frank A. Munsey Company
175 Fifth Avenue, New York

This Suit, Tailored to Your Measure $15

Express Prepaid

Other suits and overcoats in a wide selection of exclusive weaves and latest New York styles, $12.50 to $30.00.

I am a custom tailor—a maker of guaranteed clothes to special order. I will make a stylish suit or overcoat to your measure—with **true quality** tailored into every stitch and seam—and charge you less than you have to pay for clumsy-looking, ready-made garments.

I Take All Risk

I save you the dealers' big profits and give you the kind of clothes turned out by the high-priced tailors of the big cities.

Send today for my handsome free book of styles and cloth samples. Measure yourself by my extremely simple home system, pick out the style and material you like best and send me your order. I'll make up the clothes **exactly to your measure**—and ship them **express prepaid.** You examine them carefully to see that they fit perfectly and come up to my claims in every particular. If you don't find everything **entirely satisfactory,** send back the clothes and I'll return every penny of your money.

That's my guarantee. And my Bankers. The Wisconsin National Bank of Milwaukee, (*Resources, Twenty Million Dollars*) **will tell you that I always keep my word.—KING**

My Style Book is FREE. Send for it today.

King Tailoring Company

204 West Water St., Milwaukee, Wis.

A Happy Marriage

Depends largely on a knowledge of the whole truth about self and sex and their relation to life and health. This knowledge does not come intelligently of itself, nor correctly from ordinary everyday sources.

Sexology

(Illustrated)

By William H. Walling, A. M., M. D., imparts in a clear, wholesome way, in one volume:

Knowledge a Young Man Should Have.
Knowledge a Young Husband Should Have.
Knowledge a Father Should Have.
Knowledge a Father Should Impart to His Son.
Medical Knowledge a Husband Should Have.

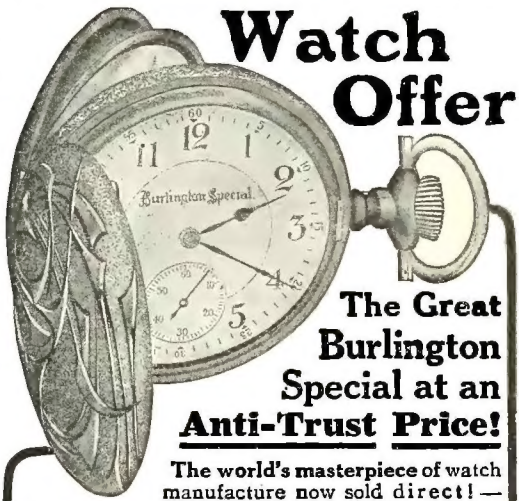
Knowledge a Young Woman Should Have.
Knowledge a Young Wife Should Have.
Knowledge a Mother Should Have.
Knowledge a Mother Should Impart to Her Daughter.
Medical Knowledge a Wife Should Have.

All in one volume, illustrated, $2, postpaid.

Write for "Other People's Opinions" and Table of Contents.

Puritan Pub. Co., 739 Perry Bldg., Phila., Pa.

STARTLING Watch Offer



The Great Burlington Special at an Anti-Trust Price!

The world's masterpiece of watch manufacture now sold direct! — The most amazing offer ever made in the whole history of the watch industry — an offer which has absolutely PARALYZED competition — **the offer of the genuine Burlington Special direct to the public at the rock-bottom ANTI-TRUST PRICE,** without middlemen's profits.

The Fight is On!

We will not be bound by any system of price-boosting contracts with dealers. We will not submit to any "high profit" selling scheme. We will not be dictated to by ANY Trust.

NO MATTER WHAT IT COSTS, we are determined to push our independent line **even if we should have to fight a combination of all the Watch Manufacturers of the country!**

And so we are making this offer—the most sweeping, astounding offer ever made on a high-grade watch. The famous BURLINGTON direct and **at the same price WHOLESALE Jewelers must pay.**

And in order to make the proposition doubly easy for the public we will even allow this rock-bottom price, if desired, on terms of

$2.50 a Month Don't miss this wonderfully liberal offer. Sign and mail coupon now. Rock-bottom, anti-trust price, whether you buy for cash or time.

POST YOURSELF!

Be sure to get posted on watches and watch values, trust-method prices and anti-trust prices **before** you buy a watch. Learn to judge watch values!

Get the Burlington Watch Company's FREE WATCH BOOK

Read our startling exposure of the amazing conditions which exist in the watch trade today. Read about the anti-trust fight. Read about our great $1,000.00 Challenge. Learn how you can judge watch values. Send your name and address for this valuable **FREE BOOK** now — TODAY. Sign & mail coupon.

BURLINGTON WATCH CO.
Dept. 1106
19th & Marshall Blvd., Chicago, Ills.

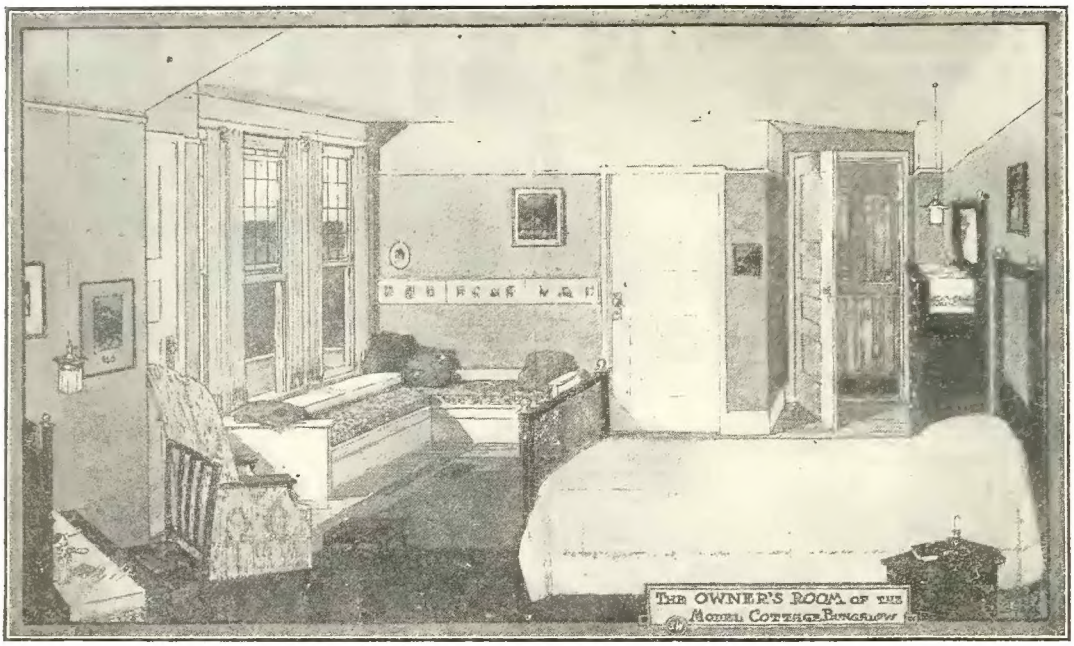
Please send me, *without obligation* and prepaid, your free book on watches and copy of your $1,000.00 challenge, with full explanations of your cash or $2.50 a month offer on the superb **ANTI-TRUST** Burlington Watch.

Burlington Watch Co., Dept. 1106 19th and Marshall Blvd., Chicago, Ill.

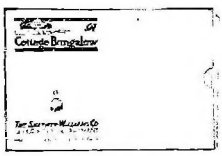
Name.....

Address.....

No letter necessary; coupon will do.



You can make your rooms as attractive as this. Send for the Sherwin-Williams' Cottage Bungalow Portfolio, which tells how. It is sent free.



Get this Portfolio and make your house beautiful, too

It has pictures in color of each separate room similar to that shown on this page and several exteriors. Each one is accompanied by specifications for painting or otherwise treating the walls, floors, ceilings and woodwork, and definite suggestions for curtains, hangings, rugs and furniture. The outside suggestions include color schemes for the house to harmonize with any given background or setting, also definite suggestions for beautifying the grounds.

An accurate and carefully thought-out color scheme for each room of this model bungalow is reproduced in color in this Portfolio. There are suggestions for painting the outside of the cottage bungalow, and for planting the grounds. Suggestions for furniture, hangings and rugs are included.

When you have looked over the decorative suggestions shown in our Cottage Bungalow Portfolio you can do one of two things:

1. Adapt all of these color schemes to your present house, getting equally good effects.
2. Send to our Decorative Department blue prints, drawings or descriptions of your house or other buildings and we will work up special color suggestions for you.

The purpose of this Portfolio, however, is to suggest practicable, workable color schemes and durable, satisfactory materials for carrying them out. Write for this portfolio today.

What color should you paint your house?

Send at once for our free portfolio: "Color Schemes for Exterior House Painting," with twelve plates in color and complete specifications for painting.

You should know first, what color to paint your house, and second, what paint will give you permanent satisfaction.

The Sherwin-Williams' suggestions for outside painting include, first, the correct color scheme for your house; second, the particular Sherwin-Williams' product to use to obtain the best results.

SHERWIN-WILLIAMS PAINTS & VARNISHES

Address all inquiries to the Sherwin-Williams Co., Decorative Dept., 616 Canal Road, N. W., Cleveland, O.

THE RAILROAD MAN'S MAGAZINE

Vol. XII. SEPTEMBER, 1910. No. 4.

Joys of the Railroad Joker.

BY RICHARD MAXWELL WINANS.

PRACTICAL joking, in order to get even with somebody, is often fast and furious among railroad men. Sometimes, however, the patience of him on whom the joke is played may be tried a little too far, and, in such a case, monkeying with a buzz-saw is apt to prove a safe occupation compared with getting into the bad graces of a train-crew. You generally have to go some to get a railroad man thoroughly aroused, but when he is sore, look out! He can furnish more unexpected varieties of shocks and thrills and unpleasant brands of hair-raising excitement than any other thwarted individual.

Some Unexpected Shower-Baths That Were Hardly Appreciated by the Bathers, and Other Less Gentle Disciplinary Measures That Worked Rapidly Toward a Result.

"HANK sure could snore some promisc'us, an' he was pullin' a extra heavy string of it that afternoon. It was a reg'lar double-header on the up-grade, drawin' hard.

"He just lay there with his mouth gapped like an open furnace, and the intake showed he had something of a forced draft. He was givin' a mighty good imitation of the deep bass whistle on one of the big hog-backs pullin' in through Bent Knee cut and callin' for the switch at the end of the turn-out—only Hank had the tremolo stop pulled out complete and his tremoloing was of the hair-raisin' brand.

"Finally it got on our nerves plumb scan'alous.

"We'd come in off'n our runs that afternoon pretty well fagged out with the uncommon heat, and we'd pulled our freight for that dinky old bunk-house for a wink er two, an' some rest—not to have our nervous system side-swiped and ditch-wrecked by a bloomin' galoot that snored so infernally that it made the goose-flesh decorate our spinal column.

"All the boys had made a try at it in good faith, but there weren't any of us none too pleased with the outlook for a snooze; leastwise not in that bunk-house while Hank was under steam—and outside the flies was thick enough to pick the meat off'n your bones and the sun hot enough to cook it for 'em aforehand.

"After we'd passed all the loose furniture and movable things over his way careless-like through the air and got no more'n a

short cussin' for our trouble—for Hank 'd wake up jest long enough to bat an eye and then turn to a snorin' ag'in—why Steve he intimates he has an idea—which was runnin' some for Steve.

"He pulls on his trousers and hikes for the tool-shed, and when he comes back he was a totin' a gate-valve nozzle in one hand and a luggin' in a line of hose with the other. Screwin' on the nozzle, he says, 'Now, if one o' you kickers 'll go out to the hydrant and turn on the water, why I'll wet down that hot box over there so it won't squawk so much, even if I have to drown it an' swim out myself.'

Administering the Water Cure.

"But nobody wanted to miss the show, so he closes the nozzle-valve and turns on the hydrant himself. Then he gits back of the locker in the clear of anything movin' his way suddenlike, while we all pretends to be asleep, but with eyes a blinkin' an' facin' Hank's bunk, an' Steve he cuts loose with a full head o' pressure, hittin' Hank in the open stoke-door first squirt out, which made him close his trap immediate. Then he opens his eyes and shut 'em ag'in sudden.

"Well, you should see him a coughin' and a spittin' and a sputterin' an' a throwin' out his arms and gyratin' like a man tryin' to swim a whirlpool, and all the time layin' on his back while Steve was a floodin' his steam dome and chest. He'd been dreamin' right through all the noise he'd been makin', for when he finally turns over and tries to swim out o' bed, he says:

"'Durn that draw! I knowed we'd run into it open some night and go down. Swim for your lives, fellers! I can't help you!'

"Then he comes out of it entire and connects with the floor all telescoped into a heap. By that time, Steve turned off the moisture and beat it outside. The noise woke the rest of us, and we poked our heads out to ask what the fit was all about—and then we pulled 'em in ag'in, quick.

"Hank spied us a laughin', and we hadn't any more 'n backed into the clear when Hank begun to heave everything from shoes to chairs our way, and he wasn't playin' any favorites, either.

A Cessation of Hostilities.

"He was jest strikin' a average, on the chance of gittin' the right man; and poor old Dave, that hadn't set in the game at all, got a wallop in the wind with a number ten that started a smash-up that mighty near called for the services of the wreckin' crew.

"After we'd got 'em pried apart and pulled their fires to prevent another explosion, Steve drifts in, unconcerned like, and wants to know what's wrecked the shack.

"Seein' he needed informin', we told him, near 's we knew, some sticklers for peace and quiet over at the roundhouse had sneaked in an' soused a few buckets of water over Hank to drown the night haws that was right fast gettin' the better of him—the which I'm not for sure certain that Hank ever believed, but he had to let it go at that, not bein' able to hang it on any one of the bunch particular.

"'Well,' says Steve, unhookin' a chair from the hat-rack where Hank 'd hung it durin' the fusillade of bricky-brac, 'this is sure shower-bath weather, all right. Makes a feller feel comfortable cool for a spell, till he gits het up ag'in.

"'Anyhow,' he continues, leanin' the back of his chair ag'inst the card-table, 'Hank come off easier 'n a bunch of guys did on a run up to the Soo Line I happened to be on once.'

"Sleep was shunted onto the sidin' for all of us by that time, so we lit our pipes and bunched up to hear Steve's experience. He says:

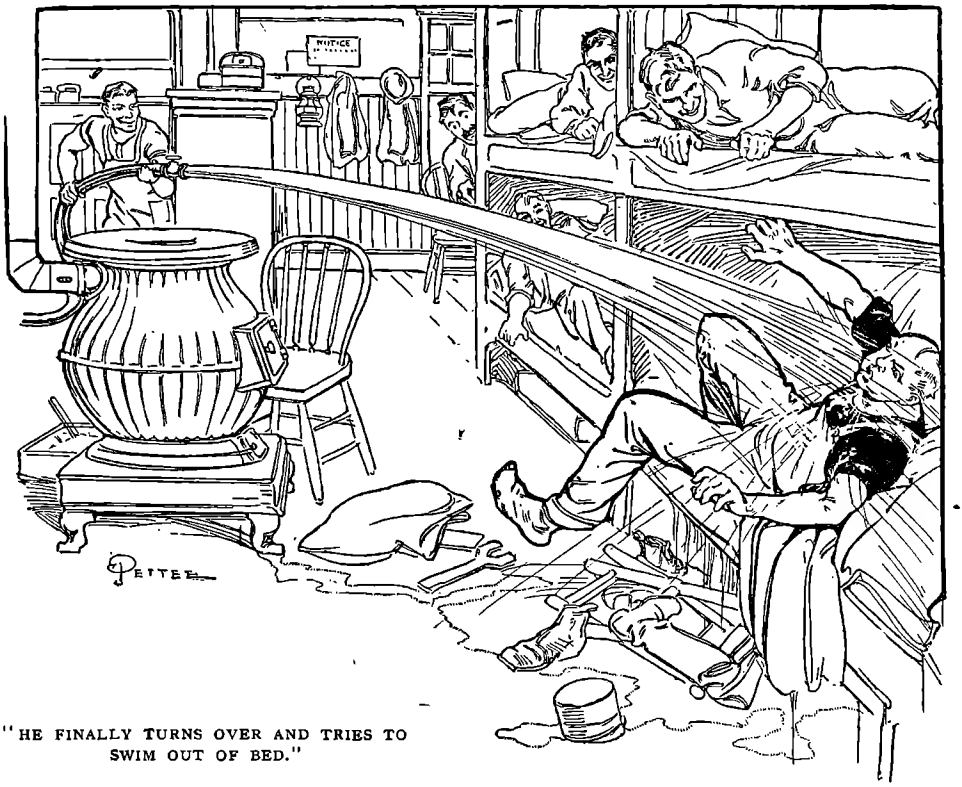
The Con Butts In.

"'I was firin' for Dan Purcell, the year before we both come East. I was still a right smart kid. We was pullin' one of them harvest-home, or some such excursions, from Chamberlain down to Sioux Falls; though why any one wanted to go to Sioux Falls in them days, I dunno, unless it was some Easterner as had rough-house at home an' wanted to jump a claim there long enough to git a divorce.

"'We had ten coaches out, an' they was pretty well filled with a mixture of everything from professors from the Government Indian School to Indians and cowboys, some of 'em ridin' in from as far out as Crow Creek and Zickrick!

"'Them cow punchers had a lot of devil-try corked up in their systems, besides what they had corked up in other things; and once in so often they'd pull th' cork out o' both!

"'They all bunched up in the three rear coaches, which they comfortably filled, and they were peaceable enough at the start. There wasn't any kick comin' till we got to



"HE FINALLY TURNS OVER AND TRIES TO SWIM OUT OF BED."

Pukwana, when durin' the stop to take on the contingent there about twenty or more of 'em climbed on top of the rear coach.

"'I spotted 'em as I looked back when we made the bend at the end of the turn-out, an' I tells Dan, an' he tells the conductor when we gits to White Lake.

"'The con was a young man, but old enough in that neck of prairie to know something of Mr. Cow Punch's disposition, so he makes his invite to them high-roosters to come down kind of gentle and polite, addin' softlike, that it was strictly ag'inst the rules of the passenger-traffic department to ride either on top of or under the wagon, an' that he'd git fired unceremonious if he allowed them the forbidden privilege.

An Invitation Refused.

"'But they wasn't moved to tears none by his heart-to-heart pleadin', and assured him in well-seasoned, if not well-chosen, talk that it was too roarin' hot inside the wagon for them, and that they wouldn't ride there, and that they proposed to stay where they was and enjoy the fresh air and gentle breezes of the prairie.

"'Right then the con had some urgent business elsewhere and he gives us the ball to hit the trail ahead. Before we got to Plankington the con held a confab with some of their friends inside and induced them to make a try at gettin' the fellows up above to come down off their perch. When we stopped, the result was so much powder smoke hangin' around that car it looked like a prairie fire. There wasn't anybody hurt; they wasn't shootin' that way—jest foolin' like, but the bunch on top managed to burn up their last round of ammunition.

"'The insiders didn't take the turn-down to their invite none too gracious, and so they framed up a job on the outsiders before they got to Mount Vernon, the last stop west of Mitchell. When we pulled up at the depot there the whole outfit tumbled out and kept the outsiders' attention attracted by tryin' to persuade 'em to come down, which they knew they wouldn't, while a couple of 'em went into the depot and gave the agent a telegram to send ahead to Mitchell.

"'It was a request to have the fire department at the station all coupled up an' ready for quick action if they wanted to witness some ripe fun when the special pulled in.

"'A Westerner is a sure enough maverick if he isn't always ready to play a hand in a game of amusement, and pay the price, at that.

"'When we got to Mitchell there was the fire department in full attendance, with their apparatus equally divided to north and south of the train. The two cowboy leaders in the game was off an' runnin' f'r the chief before the train had stopped, with the other pilin' out ready for the comin' doin's.

Dampening Their Ardor.

"'Then things started to happen. The chief gave an order and the engines puffed and chugged an' wetness galore poured out of the half dozen nozzles on both sides of the rear car. Right then the cowboys rounded up and took charge of the ceremonies. They proved their aim was as good with a hose-nozzle as with a gun-barrel.

"'They didn't give the top perchers nary an invite to come down this time. The play evident was to keep 'em from gittin' down, for if a stream hit a man hard on one side and threatened to knock him off the roof, the punchers on the other side turned a line on him and forced him back to center, and soon they was all layin' hard down on their shirt bosoms, holdin' on to the ventilator coop to keep from bein' washed off.

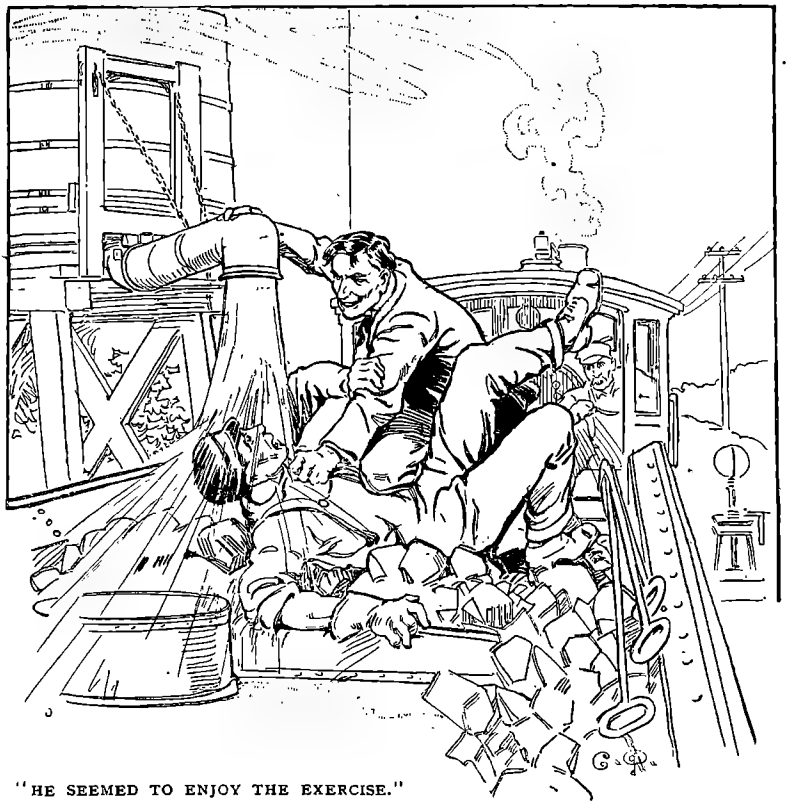
"'A few tried to git down over the ends of the car, but they got the streams fairly under 'em and was naturally squirted back on top ag'in. Them cusses kept a playin' the hose on the bunch a top of the train durin' the whole of the stop for eats at the lunch-room, the reg'lar firemen meantime enjoyin' th' show, a holdin' their sides with laughin'.

"WHEN WE STOPPED, THE RESULT WAS SO MUCH POWDER AND SMOKE."

"'When it was time to pull out the punchers turned the hose and the price of several wet lunches over to the firemen, and, pullin' a gun or two apiece, ordered the soused rats on top to stay where they was till we got to Soo Falls, or till they felt they jest couldn't any longer resist the natural temptation to come down and buy drinks for the bunch inside.

"'But they proved good resisters, both ways from the middle, for they stuck it out clean into Soo Falls, and, being plumb out of ammunition, they stood for the rankest kind of guyin' at every stop we made.

"'The play didn't wind up till after they'd been in Soo Falls for about an hour, when they'd got stocked up on prairie licker and took on a fresh supply of gun food, and then it took all the police force and part of the citizens to prevent the town's grave-



"HE SEEMED TO ENJOY THE EXERCISE."

yards from bein' filled up complete in one instalment.

"'Well,' says Hank, who'd been busy bangin' up his extemporany wash and gittin' inside some dry togs, 'I ain't got gizzard enough to send any man out on the Long Run ahead of his natural schedule, howsomever much I feel I'd like to on this particular occasion, but I will say I'd like to hammer the stuffin' loose in the onregenerate son-of-a-hand-car that spoiled my cozy trip to Sleepy Holler.

Proving His Innocence.

"'Now, look here, son,' interjects Dave, 'you can blame it all on your infernal sawmill hollerin' on the trip that the run was ditched. But whoever's to blame, it ain't your Uncle Dave. I turned a heap of water on a feller once and give him a duckin' to a finish, but when it come his turn he mighty nigh makes a finish of me, and I haven't indulged in the pastime of gittin' folks wet, leastwise not outside, for a long time.

"'It was a good many years ago that I got mine,' continues Dave.

"'I was firin' one of them little two-by-four pocket editions on the Nickel Plate, with Billy Ryan at the throttle. Well, it may be hot in Arizonny an' Texas, but they ain't got anything on the vineyard-belt along the lakes when it takes a notion to get real hot upon a real hot day and no breeze a blowin'. It was so hot that day you could have fried an egg on the top of a rail anywhere.

"'We picked her up at Cleveland. It was one of them Niagara Falls excursions, and the bargain-counter fare had give 'em a pretty jammed-up load. It was hot enough in them coaches to hold a clambake, and it weren't no wonder some of 'em wanted to ride on the platforms, the which, of course, was against the rules.

"'But the con, who was a young feller, had sort of a human gizzard on his insides, so he lets 'em out for an airin' between coaches, there bein' no vestibules. All but the front platform next the engine, not carrying any baggage, their luggage bein' mostly lunch-boxes—and he drives 'em all in from there, after havin' a right smart argument with one big feller, that had some of the makin's of his farm on his boots and pants, as material

evidence of his callin', and then he locks the door.

"'When we made the stop at East Cleveland this farmer feller piles out and lopes up to the front platform, just as we was a pullin' out. The con gets wise and goes up to present his compliments and extend him a cordial invite to come on inside out of the draft, fearin' he'd ketch cold, or fall off.

Pleasant for Mr. Farmer.

But the big guy jest returns the compliments an' extends his invite to the kid con to come out and git him, with the comfortin' assurance that if he did he'd take him by the nape of the trousers and the seat of his coat-collar and smear him along the passin' scenery. But the con, being jest newly married and havin' a decent regard for his prospective widow, had the good judgment to let him alone for a while.

"'However, when we stops at Mentor he hikes up ahead and unbosoms himself of a plan to make it pleasanter for Mr. Farmer to ride some where else, and, being young and foolish, I takes it like a trout goin' up for a fly. I was to see that the gent got a shower-bath along with his airin'. Bill cops the spirit of the thing, and he bawls out of the cab-winder:

"'"Hey, Dave!" says he, solemn as a owl, "you've got to wet down that coal ag'in. It's too dry. They didn't git enough water on it down at the yards. An' see that you soak her up good! It'll soak up a lot o' water."

Liquid Persuasion.

"'"All right, Billy," says I. "That coal-bin'll be a swimmin' when I git through with it." And as soon as we pulled out I begins drawing water in three buckets and sloshing it up over the coal. Over is a good word, too, for mighty few drops hit the coal, bein' swept back by the draft and landin' against the end of the front car. I was real careful to hit the center, so she'd slash out both ways and git that chap wherever he was, and I don't believe a bucket fire-brigade could have kept a steadier stream of water runnin' over the back of that tender than I did.

"'I expected to see the cuss come up over the end any minute, and if he had I'd a begun a heavin' coal at him instead o' water. But he had some class to his way o' reasonin', knowin' he'd be out of his element on that jigglin', swayin' tender, so he takes his bath like a perfect gentleman.

"'I concluded if he didn't vacate soon as we reached the Painsville water-stand I'd git the spout goin' full and then swing it on him, an' jest naturally drown him out—the which I did as soon as I could git it swung round, for he was still there, soaked to the skin, and a cussin' the best he knew how, and his education in that line hadn't been neglected.

"'That flood o' wetness was too much for him, and finally he hops off. But I was laughin' so hard I lost track o' him till I heard the coal rattlin', and looks round jest as he grabs me, gives me a jiu-jitsu, lands me face down on the water-table, with one hand pinned across my back and him a straddle of my boiler. Then that cuss yanks the spout inboard, disconnects the canvas apron so it could spread some, and hauls it over me direct.

Tit for Tat.

"'I could have stood the water-soakin' all right, but he give me a combination in soakin's, and the way he let fly at me with them hams hung on the ends of his pile-drivin' arms made my ribs crack and my head roar like goin' through one of them head-on collisions when you git derailed and roll down a hundred-foot embankment.

"'But he seemed to enjoy the exercise, and he kept right on, never missin' a lick, and not neglectin' any part of my carcass that he wasn't sittin' on, with the torrent from the stand-pipe buryin' us in a slather of water that washed over and flooded the coal-bin, until my hollerin' brought Billy and the con out of the telegraph-office, together with a crowd of passengers, when he beat it over the side of the tender and up the street, the drippin' water from his clothes a layin' the dust as he went.

"'I was so pounded up and sore that, seein' it were the con's funeral, anyway, I made him send one of his brakies up to help me fire her into Erie, where I went into the repair-shop for a week. Since then I've always let the other feller play his hand alone, jest as I did to-day. It's a powerful lot safer.'

"'Well,' says Benny Fletcher, getherin' up some of his stray runnin'-gear that'd got scattered in the openin' mêlée, 'when it comes to downright, cussed persistence, that guy didn't have much on a red-headed farmer that we hung a job up on out on the "Monon," back in the early eighties. But the beatin'-up prize was drawed by the farmer in this game.

"'He was a husky, gingerbread-headed Hoosier that lived up the line near Connersville. He owned a farm big as all out-doors, and he had a big herd of cows that he made a great mess of butter from. Every week he'd ship it down to Cincinnati market, together with several barrels of dressed chickens, and on a certain day regulär he'd have about a wagon-load of the stuff goin' down on the midnight express.

"THAT DEFY WAS A SIGNAL FOR ALL THE LADS WITH LONG GUN-BARRELS."

Hanging a Job on a Hoosier.

"'He was one of them close-fisted, suspicious geezers, and he insisted on ridin' in the express-car—the which he'd somehow got permission to do—for the reason as how he said he once had a pound of butter stole out of one of his packin'-cases by some wicked, thievin' express-messenger, and he wouldn't let his eyes off his stuff no more till he saw it safe in the market-stalls.

"'He made himself a regular bloomin' nuisance in the car, and we all got right well tired of him; so to make a short run of him, we framed up a fake express robbery for his special benefit. The run before the one we was to pull it off on, we spent our off time in the express-car swappin' yarns about all the desperate hold-ups we'd ever heard of, and some we hadn't, the subject bein' introduced by Bob, the messenger, sayin' as how they'd recently been a darin' hold-up on the line that the officials was keepin' quiet about in hopes of catchin' the robbers, and he naturally felt kind of creepy himself.

"'The old guy sets in close, with his mouth open, and swallows the whole rope, showin' by his nervous actions that he was goin' to be easy money when the game was called.

The Hold-Up.

"It didn't kill him off, for on his next trip in, he hands us the pleasure of his company, as usual, and so, havin' the cards all stacked, we played the brace-game as per schedule.

"'We'd tipped off a bunch of the boys

who'd be layin' over, and who'd rather have a hand in a little rough-house than eat, and they dead-headed to Liberty on the up-train,

"JAKE SANG OUT, 'A YOUNG ROOSTER FOR MINE.'"

and stowed themselves on the front platform, ready for the "attack."

"'Bob was just tellin', confidential-like, that his cash-box was plumb full of money, and he was restin' easier because we was nearin' the end of the run, when there comes a loud poundin' rap at the end door up front.

"'Give us credit for bein' duly scared and makin' a noise like a man shiverin' in his shoes, when Bob puts on a bold front and opens the door, only to jump back and throw up his hands as a old blunderbuss that might have been handed down by the Puritan fathers was poked in through the door, followed by about a dozen of the boys dressed like regulation train-robbers, carryin' a collection of antique firearms you wouldn't see on exhibition outside a museum, and that couldn't have got a bullet out of its system without a corkscrew.

"'It was sure a fierce-lookin' gang, and we all acted the part of discretion by tryin' to git a strangle hold on the man in the moon without unjointin' our arms—all but the farmer man.

"'Seems like he wasn't educated in the social eddiket of hold-ups and gun-play. He sights the masquerade procession, mutters something onreligious—that his kickin' brindle cow was prob'ly familiar with, makes a grab for the ax in the emergency-box, falls back in good order to his pile of stuff, where he stands ready to protect it, makin' a picture that'd pass for Ajax a defyin' the lightnin'.

"'That defy was the signal for all the lads with long gun-barrels to uncouple from the main train, sand the track a bit, slack ahead, and git busy switchin' the old geezer round the freight-yard promisc'us and unceremonious. And they did.

"'After gittin' the ax away from him they went to it in relays, and in a friendly sort of spirit give him a gentlemanly beatin' up that had Farmer Bricktop yellin' for brakes before half of 'em had a chance to take a wallop at him. Of course they didn't do any permanent damage to his machinery; that wasn't the play; but they did give him a round-fisted massawge, from his knees to his collar-bone, that made him a durned sight sorer than when he had that pound of butter stole.

"'No, children,' concludes Benny, after a pause, 'if that's what you wanted to know, that old carrot-top always thereafter rode back in the regular cars like the other white folks, and he never made any complaint about bein' robbed, either; although some of us could bear witness that he made mighty fine butter, and that them there springers of his was right good eatin', broiled or fried.'

"'Never knew before, Ben, that you ever run on the "Monon,"' and we all looks around, surprised to see the division superintendent leanin' against the door-jamb, hat in one hand, nibblin' a real cigar.

"'But I've been listenin' to your story, and

it proves it,' says he, 'for I knew that same old shag-headed Hoosier, or his twin-brother.

The Super's Story.

"'Back in the summer of 1887, I think it was,' he continued, takin' a seat in the circle like he was one of us, 'I was a train-news-boy then, and had a run in with the same, or another, sorrel-topped farmer of that town. He worked a con game on me.

"'Being the first train up in the forenoon, there was a good sale for the Cincinnati morning papers. On my first run I hopped off at Connersville, took my stand by the car-steps, and handed out papers as fast as I could pocket the nickels.

"'This guy, with corduroys tucked in his boot-tops, stood back of the crowd until the engineer got the high-ball and had 'em on the first turn-over, when he rushes up, wavin' his hands at me and hollerin' for an *Enquirer,* which I handed him, and he pokes it in his pocket. Then he begins to dig in his clothes for the nickel, and he kept diggin' and mutterin' something about never bein' able to find his change when he wanted it, until the front of the last car was up and I was preparin' to grab the last steps, when he flashed a wad of bills as big as a smoke-stack, and sings out to me as I swung aboard:

"'"Sorry, kid; I ain't got no change now, but I'll pay you when you come back!"

"'I was green enough to expect that he would, for my confidence in human nature those days stood about like the mercury outside, around the hundred-degree mark. It's down around the frost-line now.

"'I saw him nearly every morning after that, but he bought his papers off the local boy, and when finally I asked him for my nickel he was always "durned sorry, son, but I ain't got no change about me jest now."

"'One day I asked a native, and he told me the old skinflint ran a dairy and poultry farm which was just across the tracks from a saw-mill plant up the road a few miles, where there was a loading-switch.

"'I had told the crew about the incident, and then forgot it, until one day we backed in on the mill-switch to let a special pass, and I spied a flock of his chickens scratching around on the edge of a sawdust pile.

"'Just then Billy, the baggage-man, pokes his head out and yells:

"'"There's your chance, Butch, to collect your arrears on subscriptions from that old scalawag—and don't forgit there's ten of us in the crew, and we all like chickens!"

"'Then Jake sang out from the engine-cab, "A young rooster for mine!" and Jack Mills, the front brakeman, let me know that he liked any kind of poultry, just so it was chicken.

"'But I didn't need their urging to stir into action the resentful spirit of the kid that was buttoned inside my shirt-bosom, and I was soon maneuvering to get the flock into a corner, where I begun grabbing at yellow-legs with both hands, one leg to a chicken, and in no time I had half a dozen in each hand, and was beating it for the baggage just as the train started out.

"'But pretty soon there was two sprinters running for that car, and one of them was the red-headed guy that had beat me out of the price of a morning paper. He yelled:

"'"Hey! — hey! — hey! Stop! Them's my chickens! I want my pay for 'em!"

"'"Durned sorry, old man," I said, as Jack give me a helping hand to get aboard with my load.

"'Then I poked my head around the corner of the car as he come puffing along, hopelessly beaten, and shouts at him: "I ain't got no change about me just now," and then I added, "but I'll pay you when I come back!" which I never did, for I asked for a transfer and took a run on another line out of the same depot.

"'And,' he concluded, chuckin' a cigar-butt in the big sawdust cuspidor, 'I never felt overburdened with any serious promptings to send that old duffer any conscience-money, either—and, more than that, I don't think that I ever will.'

"'Well,' says Benny, 'he sure was the same identical individual, for he told us that same story, plumb like you told it, a goin' down one night—only he omitted to say he stole anything from you—bein', as he told us, a "pillar in the church," and I got to thinkin' that if the institution's props was all of the same worm-eaten, holler material, the whole shebang would have tumbled down a right smart spell ago.'"

Some people are like turntables; they are always changing their direction, but never getting anywhere.—Observations of the Roundhouse Foreman.

B. B., THE WEATHER WIZARD.

BY EMMET F. HARTE.

Honk and Horace Have an Inning with a Pensive Prognosticator Who Was Anything but a Hail Fellow.

"HE'S HAD 'EM UP LIKE THAT FOR THIRTY-SIX HOURS."

BASIL B. CAREW was his name. We called him B. B., which is the next thing to a .22 short. He was the incumbent of Valhalla's new weather-station. A meteorological expert, presumably, but—well, let's not begin in such a hurry.

You know we were having quite an influx of agriculturists around Valhalla—small-fruiters, truck-patchers, melon-raisers, and sugar-beeters—all sorts of versatile and diversified farmers.

They bought and put in operation a large number of farm, garden, and orchard ventures of from five to fifty acres; new ones were coming in steadily; prospects were bright; so Honk set up a yelp for a weather-station.

He wanted daily bulletins, flags displayed, wind-testers, hourly prognostications, and everything; so the untutored hoe-pushers in the vicinity could tell when to plow, when to plant, and when to take a day off for a picnic. A worthy project, if it would work, as I heartily agreed.

Honk took it up with Dade, the general immigration agent of our road; Dade squealed to the P. and P. management, and they put the proposition up to Uncle Samuel. The humble movement, growing like a cumulus cloud on a humid day, finally blew us up something definite in the shape of Basil B. Carew, accompanied by two packing-cases of skycological and windographical instruments.

He came, fresh from his civil-service exam, a round-headed, youngish man, but uppish—ouch, mister!

He had an arrogant confidence in himself that was impressive. He opened up on the top floor of our tallest, four-story, heaven-towering building, where he could see any old kind of weather, in any direction, ten or fifteen minutes before the rest of us plodders down nearer the ground had a chance at it.

He strung up his little row of pennants on a pole, stuck up a whirligig or two, set out his barometer, thermometer, and chronometer, unpacked his rubber-stamp printing outfit, and got busy with his prophecies.

Honk is an enthusiast on any subject except matrimony and buying tobacco. I'm not so much so. I'm more conservative. I once worked for a year or so in Missouri. Anyhow, when we got our weather-station Honk was mightily tickled.

"A fine thing for our people, Horace," he said, that first day the bureau started up. He was peeking through the end window of the medicine-house at the fluttering flags while speaking. "Now, the boys can tell when it's going to frost, when it's going to be hot and dry, or when we'll have rain or

hail. See that little strip of rag zipping in the breeze? That represents the supremacy of mind—the triumph of thought.

"While man cannot as yet harness and guide the elements, the vagrant winds, the tumbling clouds, he can feel the pulse of 'em and say to a certainty whence they come, whither they go, and why.

"Science, my boy; science is the key. Take away science, and where would you be to-day? Dressed in the pelt of a goat, delving with a pointed rock in the earth, for beetles or angleworms to stay your hunger, Horace; that's where you'd be."

I cleared my throat for a fitting reply to this sally, but Honk did not wait for it.

"Loan me a small chew, will you?" he requested hungrily. "What do you think of the new weather man, anyhow?"

"He's not impressed with us as much as he is with himself," I said. "When he talks to me, he seems to think I'm just a little fat dub who don't know very much about machinery. I asked him if he looked for warm weather in August, but he never cracked a smile.

"He said: 'In the event of normal pressures throughout this district, and with, as is usual, a low percentage of precipitation, we may reasonably expect maximum temperatures of ninety degrees Fahrenheit, or even higher.' What do you think of that? Why couldn't he have said: 'I should snicker! It'll be hotter'n blazes,' and been done with it? It's all a guess, anyhow. He needn't take himself so seriously."

"I beg leave to differ with you," said Honk. "It's not a guess. For instance: The flags say now 'Rain and colder,' and if you look out you will see that there's not a cloud in the sky. That's where science has the bulge on mere haphazard guessing.

"Your goose-bone prophets look up and see a big, black cloud, and say it's going to rain. When it's clear with no wind, and the thermometer stands at twenty-eight, they guess it's going to frost.

"That's where we've got the edge over 'em. We know before it gets here. It's the difference between the drilled soldier and the rabble; between the repeating-rifle and the pea-shooter; the electric furnace and the 'dobe oven. No guesswork about it, my dear Horace."

On the strength of the prediction of "rain and colder," he phoned over to a sewer-construction gang, telling the foreman to knock off ditching that day and get the cement under shelter. In view of the cloudless sky and the bright sunshine, the gang probably thought him crazy with the heat; but theirs was not to reason why, so they followed instructions.

About five-thirty a dark-green cloud rolled up from the west, and it rained a regular gully-washer, winding up with hail as big as cantaloupes—that is, small cantaloupes, you understand, not muskmelons. When it quit hailing it was cold enough for ear-muffs.

Honk just about swelled up to the exploding-point with that. He wanted to declare a half holiday, get out the populace, and have a parade in honor of the successful outcome of the prediction.

"Great!" he said. "There you are! *Quod erat demonstrandum.* The vindication of scientific methods. Never let me hear you quibble again. Keep your eye on the signals, and you'll never go astray. If you don't see it on the bulletins, it ain't going to happen, that's all," and other I-told-you-so palaver of the same sort. It was his inning.

I accompanied Honk next day when he went up to gas with the weather man. B. B. didn't seem to feel flippant. He was just taking the pulse of the elements and noting it down on a chart that looked like the rise and fall of the price of wheat since 1894. Zigzag lines, arrows, dots, and circles made with red ink. Honk rubbed his hands and smirked.

"Fine stuff," he said admiringly. "Great doings! What's on the menu for to-day?"

"Cloudy, with variable winds shifting to the east," said B. B., like a poll-parrot.

"That means more rain," said Honk.

"I didn't say so," said B. B. curtly. "I said, cloudy, with variable winds shifting to the east."

"I heard you," said Honk. "How's your chewing? We came up to congratulate you on yesterday's prediction. It was the warm article. Right on the dot."

Friend B. B. refused to beam.

"Our system is very comprehensive and dependable," he said, with a bored air. "The possibility of error is quite remote. The United States Weather Bureau has passed beyond the stage of mere conjecture."

"Just what I told Horace, here," bubbled Honk. "He is something of a Doubting Thomas."

B. B. looked over, by, and through me, as if I was some kind of a worm. He made no comment. Insects and vermin had nothing to do with the weather.

"You'll have to put the professor in an

electric heater," I said to Honk. "It seems chilly up here. *B-r-r-r!*"

"I thank you, I'll have no need of it," said B. B. "I think I'll be able to manage. Besides, if I should require any additional furnishings, the government attends to all detail of that character. Please do not handle the instruments, gentlemen."

Honk and I withdrew. This weather man was an unresponsive kind of a hail-fellow. He struck me as a little bit sleety, with a raw wind accompanying.

"Now, will you stand hitched?" I asked, after we had made our escape. "Never monkey with the band-wagon unless you can play the oom-pah."

"The young man is nervous and excited naturally," said Honk. "He isn't adjusted yet. He is in a new environment, unfamiliar surroundings, and all that, and probably our brusk Western camaraderie shocks him. You can't blame him for that."

I didn't. I forgot all about him for the next two or three days. The crappie were biting too well for me to worry about B. B., until, one noontime, my attention was called to the new weather bureau by Honk, who was comparing the code with certain signals displayed above the observatory. He was muttering to himself:

"A white flag, with a black triangle above it, means fair and warmer. He's had 'em up like that for thirty-six hours, and it's spitting snow, with the wind in the northwest. Say, Horace, that weather man has got switched off into a blind siding. Come here and see how you get it."

I cast the horoscope.

"Fair and warmer," I said, shivering. It had commenced to rain,—a cold, driving rain—and the wind was yowling. Honk shook his head.

"I can't see into no such a forecast as that," he said.

"He means to-morrow," I suggested.

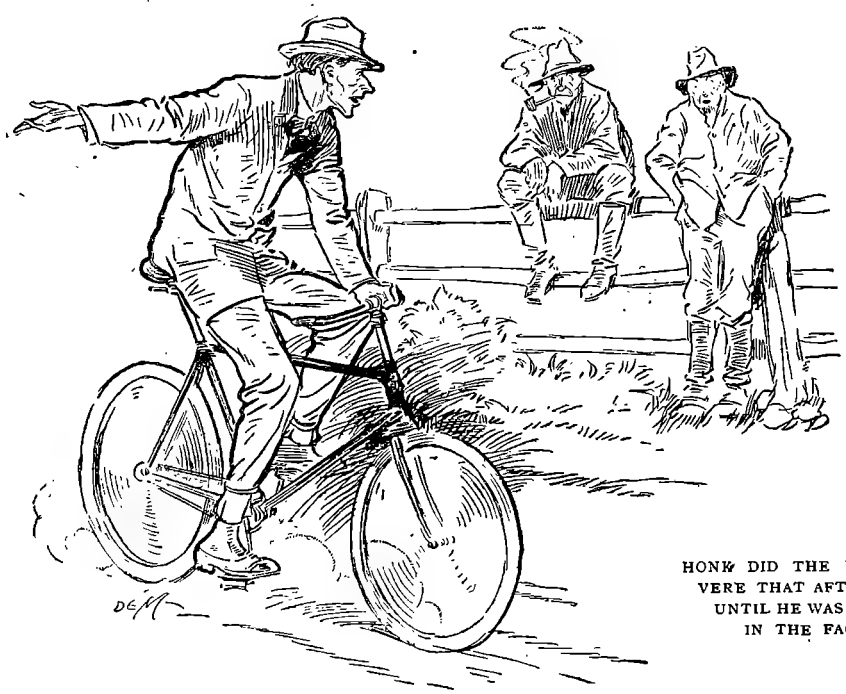
"He had the same ones up all day yesterday."

"Then, it's for day after to-morrow," I declared.

B. B. kept his "fair and warmer" signals displayed until it did turn fair and warmer. However, that was a week later. We had all sorts of cold rain, biting winds, sleet and slush, in the meantime.

On the day it moderated and the sun came out again, B. B. yanked down his white flag and black triangle and hoisted his blue with a black-centered white above it. We grabbed our code list and found that we were in for a cold, wet wave. I'll say this, however: It was the warmest and dryest cold, wet wave I ever saw. A regular chinook.

Then ensued a carnival of weather. People spoke about it. Gradually, of course.



HONK DID THE PAUL REVERE THAT AFTERNOON UNTIL HE WAS BLACK IN THE FACE.

Thunder and lightning, or rainfall, excessive heat, high winds, and such other manifestations of the fickle atmosphere, are common in their respective seasons.

It takes some time to get the American public stirred up. The people will stand for a lot and pass it off by saying: "Yes, but this ain't a patch on a circus-tent to what we had in the spring of 1872," or "When I was a boy," etc.

Valhalla was so comparatively recent that we hadn't many precedents. Our oldest settler had only been there the number of years he could count on the fingers of one hand, and then have counters to spare; nevertheless, it was a revelation to all of 'em, that festival of weather.

April came in like a lamb, cooed like a dove, warbled, frolicked, raved, snarled, chirruped, roared, and went out like a bull when he sees a dago washing on a right-of-way fence.

B. B. was predicting just as fast as he could, all this time, but he couldn't keep in sight; the weather veered so fast he blistered his hands changing signals. He got the swing of it a little better after a while, and settled down to a routine about two days behind.

We'd have a hot shower, with B. B. maintaining a strictly cold and dry schedule; then when he got his half-blue and half-white flag up we'd have a dust-storm.

May came on apace. May, that had always been a shy, sweet, gentle sprite, with her budding and blooming and her busy bees in the clover. But this time she came, with bristles standing out like the quills of a porcupine, snarling and spitting.

Only once during the month did we have a warm spell, and that was the week Honk's orchard-growers had such a time with their smudge-pots.

It was the second week in May, when our weather-station fired out frost warnings. "Prepare for killing frosts," the bulletins said. "Cover up the bean-vines and blanket the tomato-plants."

Light freezes in the valleys and old hoary Jack, with all his whiskers, on the hills, was the dope.

Honk was all aswirl with it.

"I must get out and carry the news to every fiend of 'em," he said, "or some of the louts are sure to get their fruit prospects nipped in the bud."

"Go ahead," I said. "Take my bicycle and enjoy yourself. The exercise will do you good, besides helping you."

Honk did the Paul Revere that afternoon until he was black in the face.

"Get out your smudges," he told 'em. "Build fires between your trees and in your berry-patches! Frost predicted for to-night! Burn up your old clothes and consign your furniture to the flames if necessary, but save the fruit! Men, save the fruit!"

Well, they got out and worked all night. A nice warm, balmy night it was, too, with the moon ogling them and the soft, summery breezes blowing the smoke from the smudges into their eyes, ears, and throats.

Ardently did they labor, and every man imagined that he was staving off the white blight that would destroy all his neighbors' crops, while his alone would escape. No doubt, they figured on what awesome prices fruit and garden sass would bring when it had all been killed but their own one little patch.

Toward morning it got so warm that we had to open the windows of the medicine-house. The entire heavens were darkened with the smoke from the smudges.

"Say," I said, "these guys are heating up the entire out-of-doors with their frost preventives. It's warm enough to hatch flies outside."

Honk looked out and sniffed at the combination smells.

"Fact," he said. "If this keeps up I'll have to shuck my flannel."

"It's almost warm enough for you to take your annual bath," I remarked.

The heat was no mere figure of speech. I suspected that I might be called upon in after years to stir the fancy of some reminiscent group of weather-sharks with the data of how many degrees persistent smudging could raise the frosty air of night, so I dug out a thermometer and hung it outside. Within fifteen minutes it registered 68, which is what I call smudging some.

B. B. kept his frost warnings uppermost for five days, during which period it got as hot as 104 in the shade in the afternoons. The fruit men got tired of smudging, and dropped out one by one. To keep fires going in the face of summer heat requires more than blind faith; it is too much like work.

We heard mutterings and scoffings round about. A pair of ex-smudgers, who came to the freight-room for some small consignment or other, said to me:

"Where's that long hungry who came out on a bicycle to give us the bum steer about frost?"

HONK'S TEETH CLATTERED TOGETHER LIKE A COMPRESSED-AIR RIVETER.

"He's down in the south end to-day, seeing after some paving," I said truthfully.

"Him, or somebody, needs fixing in the hay-loft," they said. "Why, this weather-bureau business is the worst frost we've had around here. Does anybody pay out money to keep up a joke-works like that weather bureau?"

"They do," I said, decidedly. "It's maintained by the government. And it's very expensive and elaborate. The system has been brought to its present high standard of excellence by the expenditure of immense sums of money for experiments and the employment of the best brains in the country to perfect the work."

"And it don't amount to shucks," they said, still unconvinced. "What's them flags up there mean now?"

"Colder, with rain or snow," I translated.

They gazed at the flags, at the flood of golden sunlight, at the heat dancing along the earth in all directions, at the blue vault of sapphire sky, and they snickered, one to the other. I told Honk about it when he came home to dinner that night.

"Let them have their fun," he said. "Science has been jeered at all down through the pig-headed ages. Mankind is the most ungrateful animal that runs at large, anyhow. He gives no credit for the hits, but he's always ready to ki-yi at the misses."

Honk had been planning a jaunt into the hills for the purpose of locating a dam site—no profanity intended.

He had in mind another big reservoir and reclamation project. At the last moment, I took a notion to accompany him, seeing it was Saturday afternoon, and Sunday wasn't a very busy day.

It was a pretty arduous trip, through cañons, rocky trails, and bad lands—not very far, only about thirty miles, but unhandy. We hadn't got macadam driveways built in the Mystic Hills yet.

"I'll get the ponies while you fix us up a lunch," Honk said. "We'll ride out, take a few measurements, size up things, and come back by moonlight. It'll be poetic."

"If it doesn't storm," I said.

"I'll drop in at the observatory and get the dope," he said. "If there's anything doing, B. B. will have it on his chart."

Honk cantered up, leading my mount, in half an hour. It was a bright, balmy, buoyant and altogether blithesome May day.

"Leave the medicine-house all open," he suggested. "It needs a good airing. Hang the bedding out the windows; nothing will bother 'em, and the weather observations say continued warm and dry. B. B. took a special reading for me. We'll have a dry wave."

I went back after my slicker at that. Honk refused to take his, and made remarks besides.

We got to our destination about 3.30. The dam site was within a hundred yards of where Honk had expected it to be. He measured, calculated, set stakes, figured levels, computed thicknesses and lengths and other idiosyncrasies, while I jotted down the results in a note-book, in my fine, copper-plate handwriting.

We became hungry, ate our sandwiches, admired the view, and took chews from my plug.

About sundown we started on the poetic return trip. It was sultry. Presently a cloud gathered from nowhere in particular, and it began to thunder and growl like all the sundogs were on our trail. It was just a step from that to wind and rain; then, fire and water engulfed us. The earth rocked, the trail melted, the air turned to spray. Honk's hat blew up—that is, off and up, about two hundred feet in the air, took its bearings, and sailed about a mile across the cañon.

I apologized to Honk and donned my slicker. It wasn't a passing shower, not by six hours. It kept on, even after Honk was thoroughly wetted. And he'll never be any wetter in this world.

It was a cold rain, too. Honk's teeth clattered together like a compressed-air riveter, until he began to feel aggrieved—which he did ultimately.

"Tk-tk-tk-tk," he said. "What'd that-tk-tk weird ass of a tk-tk weather man mean by tk-tk-tk saying it wouldn't rain?"

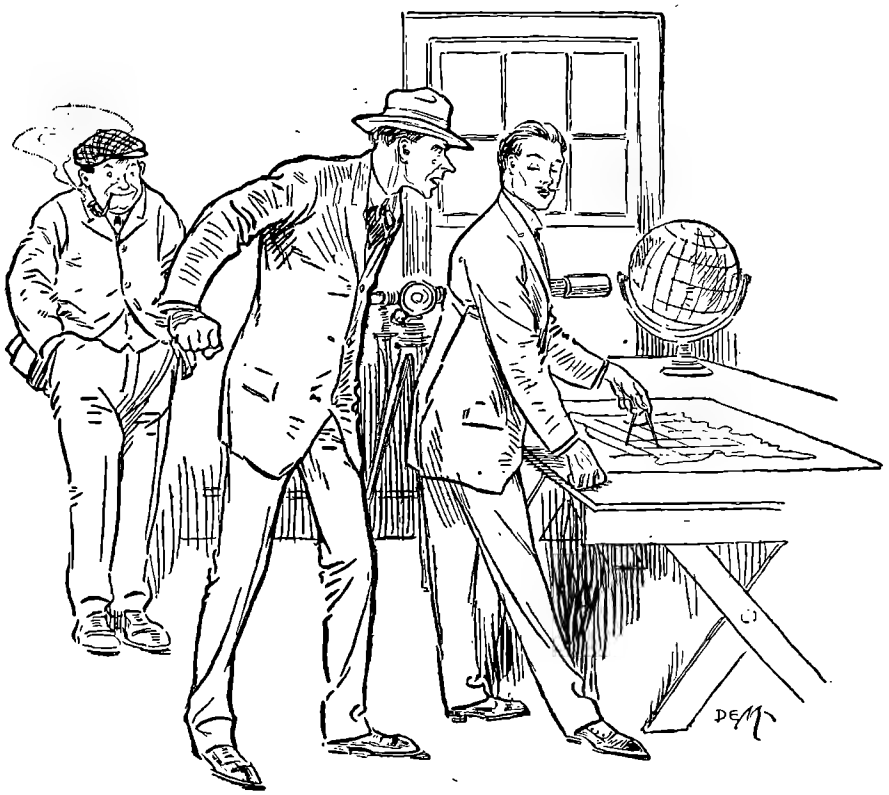
"He's a wag," I suggested. "A p-funny man. He was joshing."

"I'll josh him!" castanetted Honk. "I'll josh the tk-tk-tk block off of him!"

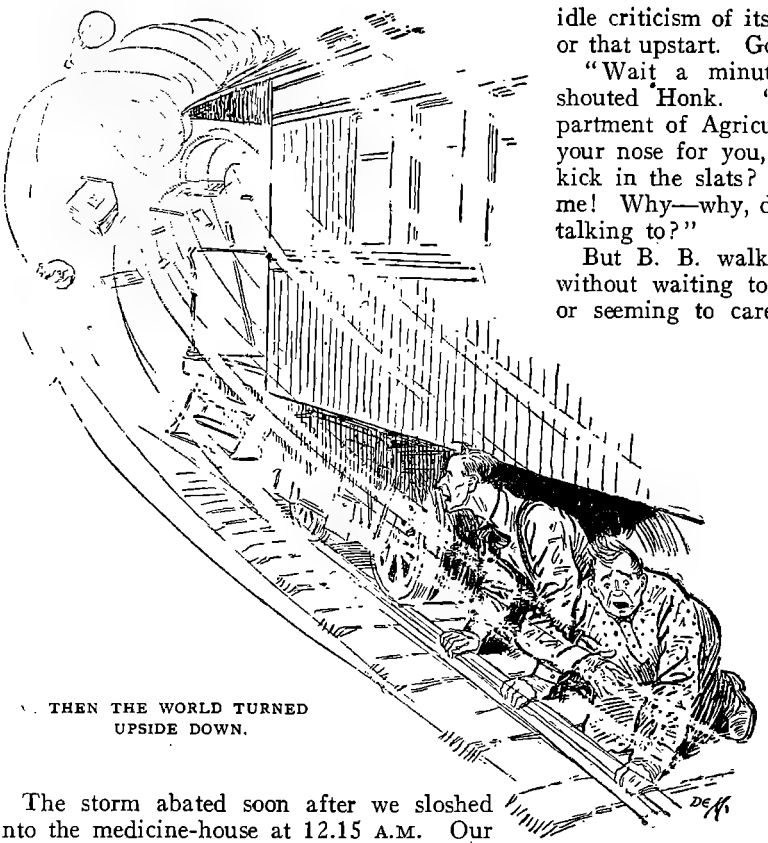
"Mankind never gives credit for the hits," I remarked, "but is always ready to ki-yi at the misses."

"Do you want to be flung over a precipice?" threatened Honk.

So soon as he got well angered his temperature rose and he was warm the rest of the journey. I have noted that fact for the benefit of arctic explorers, icemen and others. Keep your companion fighting mad and he won't freeze.



"WHAT WOULD THE DEPARTMENT OF AGRICULTURE SAY IF I GAVE YOU A PLAYFUL KICK IN THE SLATS?"



THEN THE WORLD TURNED UPSIDE DOWN.

The storm abated soon after we sloshed into the medicine-house at 12.15 A.M. Our quarters were well soaked. The only things that had escaped a drenching were the insides of the electric-light bulbs.

Honk raved and raged. I sat, wrapped in my slicker, and listened. I wondered if he would touch on every phase of the situation before he ran down. I believe he did. Some he touched twice—and with a rare eloquence and biting sarcasm.

He blamed the whole thing, even to the loss of his hat, on little, round-headed, conceited B. B.

It was no fleeting rankle, either. He was still savage next day. We hunted up the unfortunate prognosticator, and Honk told him about it.

"You're a false alarm, you are!" sneered Honk. "What you don't know about weather conditions would keep a book-publisher busy for a thousand years! A wiseacre, you are, a sage and a seer, I don't think! If I had your head, I'd waste no time with weather! I'd travel with a side-show! A freak, that's what you are, you—you—"

"Ahem!" interrupted B. B., bristling. "Your tone is offensive, sir. The Department of Agriculture does not encourage the idle criticism of its representatives by this or that upstart. Good day, sir!"

"Wait a minute, you four-flusher!" shouted Honk. "What would the Department of Agriculture say if I tweaked your nose for you, or gave you a playful kick in the slats? Shut up! Don't sass me! Why—why, do you know who you're talking to?"

But B. B. walked away ungraciously, without waiting to hear who Honk was, or seeming to care particularly about it anyhow.

Honk plunged with fervor into the task of getting B. B. eliminated from Valhalla, a proposition not so simple as he thought.

He wrote to the home office first, setting forth a string of complaints that took eight cents to forward. After a due lapse of time he got an answer, a sort of printed slip, stating that his charges would be investigated in regular alphabetical order.

They advised him to keep perfectly calm in the meantime, take no rubber money in payment of bills, eschew worry, live within his means, and to bear in mind that the mills of the gods were too large to do any three-hundred-revolutions-a-minute stunts. All of which was signed with a rubber stamp.

Impatient, Honk took the matter up with Dade, with the P. and P., with the Senators from our State, members of the House of Representatives, and even threatened to write to the President himself.

While all this was going on, B. B. displayed his flags, issued his bulletins, and concocted strange, pathetic predictions to suit his own whims. An odd genius was B. B. What the weather actually turned out to be in the end didn't interfere with his work in the least. His observations were separate and apart.

If the local rain flag needed an airing, he aired it, sunny days preferred. If he thought we needed snow, snow he predicted, May or no May.

He branched out, too, pretty soon. Got him a lot of new instruments, which he in-

stalled with gusto. One day a big box came for him, by express, and not long thereafter Valhalla was stirred by the sight of a captive balloon tethered to the roof of the observatory. B. B. was going to be a scientist for true.

He anchored his balloon with a block and pulley attachment so he could pull her down, climb into the basket and take his skycometer up four or five hundred feet, where he could observe and potter around discovering weather never before dreamed of.

The turmoil of weather and false prophecy continued. It was a record-breaker for Valhalla that spring. Blazing hot days jerked the fruit-buds into blossom, and freezes followed which killed the leaves on the trees.

It was weather that no smudges could combat. When all the vegetables were nipped down to the ground, it would turn warm for a few minutes, rain, change to sleet, end in snow, and freeze up again.

June arrived, with hot flashes and an ominous calm. The first day of June was a smuggy, underwear-sticky day, and so hot you could taste it. Too hot to work; too hot to play.

Honk and I sat on the shady side of the medicine-house all afternoon of that day, with our tongues lolling out, panting. At two o'clock it was bad, at three worse, and at four we gasped and swore we couldn't stand it a minute longer without help.

"Look at that weather-pimple," wheezed Honk. "He's up in his balloon, trying to locate a cold snap. Look at those signals," he sneered. "High winds and unsettled! Faugh! And not a leaf stirring. Fan me, or I perish!"

At that moment a dull, droning sound vibrated in the air. We were so nearly stifled we didn't pay much attention to it at first. The droning grew to a murmur. Honk sat up, sweating with the exertion, and cocked his ear to listen.

"What's that roaring?" he asked.

"It's the high winds predicted," I said. "Hold on to your hat."

He dragged himself to the end of the car for a reconnaisance.

"Man!" he said. "There's a cloud coming up, and it's coming buzzing!"

It was from the southwest. A big, tumbling, black funnel, with a flying, frothy spume scudding before it.

"A jimmycane!" I yelled. "Dig for cover! Under the coach and hang on to the rails!"

"Look at that fool weather man!" shouted Honk. He had to shout, for the whistling roar was upon us. "He don't know enough to go in when it rains!"

Then the world turned upside down, all the fireworks in the universe exploded, ten million dogs howled and yelped and a billion wild horses galloped across Valhalla. Ever hear the screaming, high-keyed siren of a tornado? Excuse me, I don't care for it.

It don't waste no time with you, though. If it don't get your meat-house the first swipe, you're safe. It is gone.

I unhooked myself from the rails where I might have been cut in two by the medicine-house if the wind had shifted her—but it hadn't—and looked for Honk. He crawled up out of the ditch, muddy and disheveled, but intact.

Finally, the rain slackened. With one accord, we looked toward the observatory, Honk and I. It wasn't there any more. Neither was the balloon.

Honk gouged a large chunk of mud out of his left ear, stared at me in solemn silence for a moment, and then said huskily:

"He's gone."

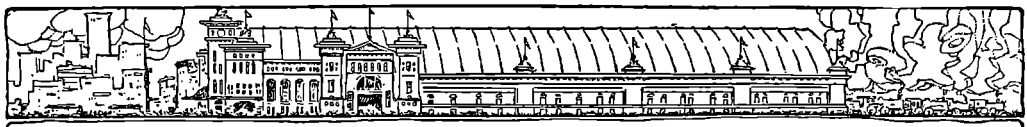
"Well," I said, "he made good before he left, anyhow. He predicted high winds and unsettled."

TREE BLOCKS TRAINS TWO DAYS.

A GIANT red fir-tree, standing on the west slope of the Cascade Mountains, was recently blown down, falling across the tracks of the Northern Pacific Railroad, where it blocked traffic for two days. Its monster trunk measured nine feet in diameter, and, as there was no saw in that part of the country large enough to cut through it, and chopping would require many days, the wrecking crew set to work to dynamite it.

A number of auger holes were bored into it and these filled with dynamite. The explosion splintered the trunk to such an extent that it could be removed, and also tore up the track for some distance.

The rebuilding of the roadbed, however, was considered but a small task as compared to the removal of the tree by other means than dynamite. —*Popular Mechanics.*



BEYOND THE LIMIT.

BY BESSIE BARDSLEY.

Written for "The Railroad Man's Magazine."

THEY had a baby doll for waitress at the next place on the line,
(A brakie told us all this giddy news).
One freight-train crew entire had gone raving mad about her—
She could marry any one of them she'd choose.

She was pretty, she was witty, her figure was a dream;
But Brakie Checkers said, "She's not my style."
Just by that we knew he'd "lost out," but we never said a word—
Only handed him a sympathetic smile.

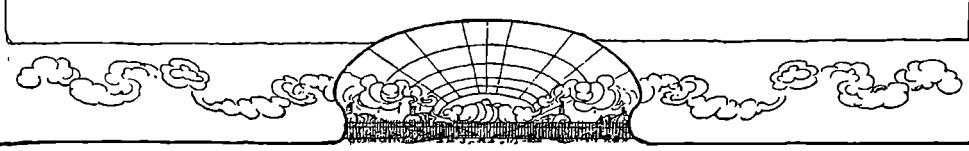
In two days, by the calendar, the "dream" was sent to us,
Because she'd scrapped with every one up there.
She was painted, powdered, made-up, and fourteen dollars' worth
Of puffs and dangle curls adorned her hair.

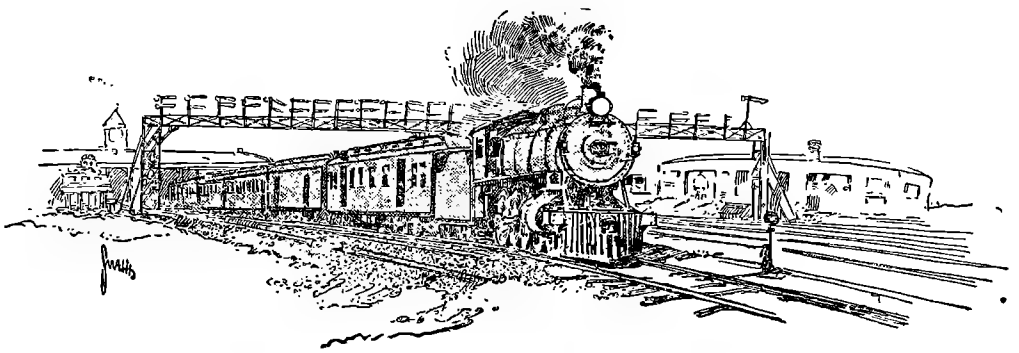
She passed the other hashers like a pay-train would a tramp;
The manager was dealt a haughty grin.
We could see she thought she owned the place, she'd come to settle down;
Just brought along her charm-strings and moved in!

Could she work? She scrubbed the counter off, she tidied up the shelves,
And took a dozen orders in a flash.
Took them, she didn't *bring* them in; please to understand,
Bluffing was her forte—not slinging hash.

She told the boss to "Go sit down and rest your face and hands!"
Believe me, there was class to her for fair.
She ordered all the girls about, and called the chef a "chink,"
Because he joshed her once about her hair.

We thought the boys all liked her and she liked all the boys—
That's the reason that we stood for so much sass.
But when she said all railroad men just looked alike to her,
You bet she got her time-check and her pass!





Why the Steam-Locomotive Will Stay.

BY ROBERT H. ROGERS.

THERE is a wide-spread impression that electricity is in a fair way to succeed steam on railroads, not only in suburban and terminal service, but for general trunk-line requirements as well, and that the passing of the steam-locomotive to a berth with the cable-car in the hall of antiquities, cannot be delayed much longer.

The truth recorded in this article about the electric locomotive seems to render the above conclusion largely fallacious. In view of the very slight ground which exists for its foundation, it is unfortunate that the peace of mind of railroad men should be at all disturbed.

This is not unnatural, however, as there is much loyalty to ideals and traditions in the ranks of railroad men. It amounts almost to a spirit of resentment toward the innovation, and added to it is a feeling of uneasiness over what must follow in the wake of such a drastic revolution in motive-power.

Some Very Good Reasons Why the Controller-Handle Will Never Take the Place of the Throttle-Lever in Main-Line Railroad Operation in America.

IT has been feared by engineers, since the introduction of the electric motor into railroading, that the dignity which has now become associated with their part in steam traction will largely disappear, and with it a reduction in wages to the scale now paid motormen on interurban lines. Firemen, on the other hand, are concerned over the probability that they will be relegated from their present position of importance to that of helper, or "second man," on the motors, also with reduced compensation.

If such a possibility as a general electrification of railroads now operating by steam should materialize, it would affect many more than these two classes of railroad men. It would, in fact, completely disrupt division and shop organization as it is now constituted.

The engineers and firemen, however, have in reality much less to fear than the men in the shops, for in localities where electric main-line traction is in evidence it has been demonstrated that the road men can be readily adapted to the new order of things; but it is extremely doubtful if places could be found for the present roundhouse hands.

Unlikely Changes.

The electric locomotive has little in common with the steam-engine so far as maintenance is concerned. It has no cylinder packing to renew, no flues to calk, no valves to set, no staybolts to cut out, nor steam-pipe joints to grind. The boilermakers would practically disappear from the roundhouse, and the present work of the machinist would be so modified as to be unrecognizable. All of the minor occupations, such as flue and ash-pan cleaners, grate repairers, brick-arch men, boiler-washers, and many others, would have to be eliminated from the shop organization.

In place of these time-honored standbys, there would necessarily arise an army of mechanics now largely unheard of in railroad work, to cope with entirely different repair conditions, and whose ranks might be scanned in vain for any of the old guard, except possibly the air-brake inspector, box-packer, and turntable man.

All this, however, is merely idle conjecture, because there is scarcely a remote probability of trunk-line electrification. These bugbears are mentioned because they have been bothering railroad men ever since the first electric locomotive succeeded in pulling a train on a steam railroad, and because there is no worry akin to the fear that comes to one whose life's work is menaced.

As the title of this article implies, it is intended to be reassuring to those who look for sudden changes in railroad operation. With that end in view, it may be best prefaced with a few timely statistics. These indicate that 3,233 locomotives were built in 1909, and although this total is less than in former years, it nevertheless, shows a healthy addition to the total steam rolling-stock of the country.

Though the size and hauling capacity of locomotives continues to steadily increase every year, the outlook for 1910 points to at least 5,000 engines. Through their greater development, these will easily equal in power the 6,265 produced in the banner year, 1905.

The mere mention of statistics indicating a revival in locomotive building, is far from being the compelling argument for the continuance of steam traction. The real augury for its future can best be made after a careful review of what has been actually accomplished with the electric engine, and of the prominent features associated with its cost of installation and comparative performances.

Not until recently have these figures been available for consideration, as the various motive-power chiefs have been occupied in their tabulation covering a very long period, and because they have hesitated to commit themselves one way or the other. Besides these causes of delay, the presentation of such statistics has not been forthcoming, for the very natural reason that there were few to offer.

With very few exceptions, the railroads, not deceived by the optimistic claims and the enthusiasm which greeted the electric locomotive, have largely preferred to play a waiting game. The general policy was to let somebody else take the initiative, and make the mistakes inseparable from any such drastic and costly metamorphosis.

A Pioneer in Electrification.

For a long time the Baltimore and Ohio Railroad, which has been the pioneer in heavy electric traction, was very closely scrutinized, and there is little doubt that what happened there largely dictated the policy of other roads in going to electrification. This road, in 1895, through the latter medium, began the operation of all passenger and freight trains from Camden station, via the new "belt-line" tunnel under the city of Baltimore, to its northern limits, a distance of about two miles.

This departure was on a scale of startling magnitude for the times, as it implied the complete surrender of the steam motive-power in the territories mentioned.

The details of the experiment had been planned with exacting care, and it was wonderfully successful almost from the first day. Those early motors handled with ease the heaviest freight-trains, including always the engines of the latter, which were of no assistance as they were not allowed to use steam in the tunnel.

Although the records are somewhat hazy, the writer's notes, gathered during active participation in that period, indicate that one of the motors is credited with hauling, unassisted, twenty-nine loaded freight-cars, two engines and a caboose. The grade is at

least one per cent, and this train would probably have required the two locomotives to move it.

Slow Progress.

The electric locomotives weighed one hundred tons each, and in view of the fact that they were built with each of their four axles directly driven, the total weight was available for adhesion. Excepting a few improvements which time has brought about in electric-locomotive construction, these pioneer motors differed but slightly in general build and appearance from those now in service.

With the exception of the electrification of the Manhattan Elevated Railroad, formerly a steam road with about thirty-eight miles of track, traversing New York City, this two-mile stretch of the Baltimore and Ohio remained for a long time the only example of main-line traction operated wholly by electricity in which steam had been supplanted.

Although admittedly successful, and thoroughly economical, this line was too short for any definite conclusions as to the real value of such an equipment. Hence little progress was made during the ensuing eight years up to 1903.

During this interval, there was a notable extension of electricity to municipal and suburban lines, particularly to city cable-roads; but this work has no bearing on what has been done toward changing trunk-line traction from steam to electricity, and the effect of the change on steam-railroad employees.

While operating practically alone in an unexplored field, the Baltimore and Ohio effectually developed the fact that electricity affords the only real solution of the locomotive smoke problem in large cities. Its belt-line tunnel would probably never have come into being had not the advocates of the new power made it clear to the city of Baltimore that with it the general train service would be clean and noiseless.

Solving the Smoke Problem.

The full realization of these two pleasing features eventually inclined the New York municipality to the consideration of a similar system to be effected in that city, for relief from the smoke arising from the engines of the New York Central, and the New York, New Haven and Hartford railroads, both of which use the Park Avenue tunnel between the Grand Central Station and Eighty-Ninth Street.

When the agreement was entered into between the City of New York and the New York Central Lines, it called only for the operation of trains by electricity through the Park Avenue tunnel, but the railroad company, from a broad standpoint, concluded that the electric traction should be extended to embrace not only the remainder of its passenger lines in New York City lying to the north of the tunnel, but also extending out into Westchester County for a distance of from twenty-five to thirty miles from the Grand Central terminal.

In reaching this conclusion, it was also decided that the safety of the public be better guarded by the elimination of grade-crossings in the cities and towns along its right-of-way. In almost every instance, the local governments cooperated with this policy; but, regardless of the strenuous efforts of all concerned, the proposed improvements north of the limits of Greater New York came to a standstill because of the lack of unity between the railroad and the board of railroad commissioners.

Why Electrification Fails.

Consequently, the New York Central was temporarily forced to fix the northerly limits of its electric zone at High Bridge on the Hudson division, and Wakefield on the Harlem division, seven and thirteen miles, respectively, from the Grand Central terminal. This interruption to the company's plans occurred in 1906, and many adjustments have since been made. The ultimate termini will be at Croton or Peekskill on the Hudson division, and North White Plains on the Harlem division.

The New York, New Haven and Hartford Railroad, being a tenant of the New York Central between Woodlawn and New York, a distance of about eleven miles, was also forced to provide an electric equipment between these points, but with a similar expansive policy decided to extend its electric zone to Stamford, Connecticut, thirty-seven miles from the Grand Central Station, which gives it the longest electrically-operated main line in the country.

So much for what has been done in trunk-line electrification since the Baltimore and Ohio broke the ice in 1895. The grand total of less than one hundred miles of road (not of track) converted from steam to electricity in fifteen years should not occasion any particular alarm to the men of the steam roads

This mileage does not include unimportant steam lines which may have been converted in that period, although there are very few even of these. Most of them were transformed into trolley roads, and the change has no bearing on trunk-line conditions.

The cost incidental to converting this insignificant number of miles to electric traction has been enormous. It is doubtful if $25,000,000 would cover it in the aggregate. These were old railroads, well organized, and thoroughly equipped with steam requirements.

Heavy Cost of Installation.

The change they made compelled them to take on a vast number of skilled mechanics hitherto not employed, without appreciably diminishing the ranks of the regular employees. As the percentage of miles electrified is so small compared with the total railroad mileage, there has been no reduction in the number of locomotives required, and each road has added materially to its steam equipment since the partial electrification.

This tremendous initial expenditure constitutes the prohibitive feature against the electrification of present-day steam railroads. While there are a few instances in this country where the change would be permissible from a financial standpoint, in no case would it be undertaken without the assurance that an increase in net receipts would follow sufficient to more than pay interest on the extra capital involved—a condition which is apt to prove extremely unlikely.

In support of this view, the recent comment of President Harahan of the Illinois Central in a report on the proposed electrification of the suburban service of that road is of interest:

"Our suburban traffic is not sufficiently dense to warrant the expense necessary to electrify these lines, and it is evident that even under electrification there would not be an increase in traffic sufficiently large to offset the annual cost of operation. It simply proves that under present conditions of steam-railway electrification, where it means the replacement of a plant already installed, it is not justifiable either in whole or in part."

So far as the density of the traffic in the above statement is concerned, it may be added that the suburban district of the Illinois Central in Chicago covers about fifty miles of road, and carries, in round numbers, about 15,000,000 suburban passengers every year; an average of 41,150 per day, or 1,700 in an hour. The net revenue of this business as at present operated under steam, for the fiscal year ending June 30, 1909, was $109,712, and the estimated net revenue under electric traction is $284,765, a gain of $175,053 in net revenue if electricity should be installed.

But before this can be realized there must be an initial outlay of $8,000,000 to cover the cost of electrification, on which the annual interest and depreciation can be safely reckoned at ten per cent, or $800,000 a year. Deducting from this startling amount the $175,053 saved through electrification, the annual deficit under electrical operation is $624,957.

An increase of 100 per cent in earnings would not enable the suburban business of this road to break even, should it be electrified. If the suburban traffic of the Illinois Central is "not sufficiently dense to warrant the expense," it is hard to see how it could be undertaken by less prosperous roads for whose use it has been advocated.

Executive Attitudes.

Mr. I. Kruttschnitt is director of maintenance and operation of the Harriman lines—probably the most important railroad position in the United States, if not in the world, and any opinion of such an incumbent must necessarily be carefully weighed. Mr. Kruttschnitt has this to say regarding the proposition to electrify the main line of the Central Pacific over the Sierras:

"We have found that it pays to make haste slowly with regard to innovations. Electrification for mountain traffic does not carry the same appeal that it did two years ago. Oil-burning locomotives are solving the problem very satisfactorily. Each Mallet compound, having a horse-power in excess of 3000, hauls as great a load as two of the former types burning ten per cent less fuel, and using fifty per cent less water."

The Pennsylvania Railroad must use electric traction between Harrison, New Jersey, and Sunnyside, Long Island, in connection with its New York improvements, and will employ it to that extent on its system; but nevertheless Mr. A. W. Gibbs, its general superintendent of motive-power, is quoted with the following pessimistic opinion:

"The cost of everything electric is tremendous. The electric locomotives, such as they are, cost more than double the steam-locomotives which they replace, and we must

add the cost of track preparation, of the power plants, and all that goes to make the electric system as a whole.

"The demand has frequently been made that lines leading into terminals should be electrified. In some cases the same demand has been made in the case of cities that are not terminals. Such a demand would involve two locomotive terminals, one on each side of the city, with electrification of the space within the city limits, a supply of special electric locomotives, and the delay consequent upon a double stop.

"To offset the cost of this, there is no saving whatever in operation. On the contrary, the operating cost is largely increased. Even if the railroads could stand the burden of cost, it is quite certain that the public itself would not tolerate unnecessary delays of this kind.

Expense Too Great.

"Naturally the roads hesitate to undertake new electrifications, not only on account of the expense, but also because it is wise for one railroad to profit by the mistakes of another and thus avoid costly repetitions.

"While anything of the kind is possible with an unlimited expenditure of money, we do not hesitate to say that the time has not yet come when such an enormous outlay of capital would be justified by the returns; and, further, we assert that the capital thus diverted would be used to better advantage in other directions."

The Boston and Albany Railroad betrays little enthusiasm for the project, as the following quotation from its report states:

"Some slight economies might accrue in transportation expenses under this operation, but these would soon be entirely absorbed by the additional expenses incurred, and the net saving would be so small as to be almost inappreciable."

Thus run the guarded opinions, nevertheless, of those whose expressions may well be listened to in the study of the transportation problem. Although none of the above quoted have essayed the experiment, it is quite evident that they have carefully weighed what has been accomplished, and that they do not consider the game worth the candle. It may be well to briefly review the experiences of the roads which abandoned steam for electricity as a motive-power.

In the Baltimore and Ohio experiment, the end has no doubt justified the means from every view-point, but it should be borne prominently in mind that this is almost what might be called a helping service, and is far from the scope exhibited by the New York Central in the City of New York.

The Baltimore and Ohio motors pull trains only in one direction, up the grade from Camden to Mount Royal Station, and return light for other trains, whereas on the former road the power is expended in each direction, and on a vastly greater volume of traffic. This may serve to partially explain why the unquestioned good performance of the Baltimore and Ohio failed to influence for such a long period.

Following the Baltimore and Ohio, the first electrified steam road from which any conclusion of results may be drawn is the Manhattan Elevated. The total cost of its electric installation was $17,000,000. The operating expense since the change was made has decreased from sixty-one per cent to forty-six per cent of the gross receipts, and its net results, after taking care of the increased capital, etc., show fifteen per cent profit.

The significant fact remains, however, that the increase in business since electrification has been forty-six per cent. The system now carries 250,000,000 people a year, 690,000 a day, or 28,800 an hour. Relying on these figures from published reports, it will be appreciated that forty-six per cent increased business was required to bring about fifteen per cent reduction in operating ratio.

For another prominent example of electrification, and to preserve the sequence, it now becomes necessary to refer to the Mersey Tunnel road, connecting Liverpool and Birkenhead, England. In its four-years' report of electric operation, the net profit, allowing interest, etc., on the increased capital due to electrification, is also shown at fifteen per cent, but it took an increase in traffic of fifty-five per cent to make this possible.

Experiences of the N. Y., N. H. and H.

There is no doubt that the New York Central and the New York, New Haven and Hartford are handling trains more economically in their respective suburban districts about New York than they formerly moved them by steam; but the fact remains that, to enable this to happen, extremely heavy capital costs had to be assumed, and the charges on these costs make the entire operating cost far higher than it used to be in the days of steam operation.

The New Haven road went heavily into electrification. Its four-track main-line from

Stamford, Connecticut, to Woodlawn, New York, about twenty-seven miles, represents the highest development in electric traction which can be exhibited anywhere in the world. The motors embody a combination of trolley for the New Haven proper and third-rail contact while on the New York Central from Woodlawn into the Grand Central Station. They cost the company $40,000 each, or twice that of a steam-locomotive adequate for the same service.

Besides the heavy outlay for single power units, it requires two of these $40,000 electric engines to handle an express-train of eight cars on the same schedule which prevailed when steam was in vogue. This makes the capital cost of the motive-power on these trains at least over $75,000, and in connection with this there must be an interest and depreciation amounting to $20 a day.

For Suburban Electrification.

The attitude of the New Haven road, after employing electric traction since 1907, may best be illustrated in the following extract from a letter written by Mr. C. S. Mellen, president of that road, and which is embodied in a report of the Electrical Commission of the State of Massachusetts:

"We believe we are warranted in saying that our electric installation is a success from the standpoint of handling the business in question efficiently and with reasonable satisfaction, and we believe we have arrived at the point where we can truthfully say that the interruptions to our service are no greater, nor more frequent, than was the case when steam was in use; but we are not prepared to state that there is any economy in the substitution of electric traction for steam; on the contrary, we believe the expense is very much greater."

This naturally becomes the most concise utterance of any heretofore quoted, as it is derived from actual experience with electric main-line traction. Although, as has been mentioned, only one-half of the New York division was included in the electrification, this was sufficient to place the New Haven road in the van as the exponent of electric traction for trunk-line requirements.

Mr. Mellen further says: "The interruptions to our service are no greater, nor more frequent, than when steam was in use. The business is handled with reasonable satisfaction, although it is believed that the expense is very much greater."

In other words, the inference may be drawn that the substitution of electricity has simply resulted in maintaining the usual and established efficiency of the service at a largely increased expenditure.

In an address recently given by Mr. L. R. Pomeroy before the Engineering Society of Columbia University, and to which the writer is indebted for some of the statistical matter in this article, he summed the situation in a nut-shell as follows:

"The only cases where electric operation is commercially justified is in congested local passenger situations, where the conditions closely approach a moving-sidewalk condition, and the records show that these cases have been profitable only when a large increase in business has been realized."

It is only fair to the electric locomotive, after the above unfavorable facts, and to the judgment of those who risked the heavy initial outlay for the sake of future results, to say that if the first costs could be eliminated from consideration, which of course they cannot, electric installation would be perfectly justified from the standpoint of economy, as the electric locomotive can be maintained at about forty per cent of the cost of the steam-engine.

Comparative Figures.

The distribution of the amount required to maintain a steam locomotive is approximately as follows: boiler, 20 per cent; running gear, 20 per cent; machinery, 30 per cent; lagging and painting, 12 per cent; smoke-box, 5 per cent; tender, 13 per cent; total, 100 per cent. For the electric locomotive: boiler, 0 per cent; running gear, 20 per cent; machinery, 15 per cent (one-half the corresponding item for steam engine); lagging and painting, 7 per cent (5 per cent less than for steam engine); smoke-box, 0 per cent; tender, 0 per cent; total, 40 per cent.

Presuming that electricity would be adopted as the standard motive-power on the Pennsylvania Railroad, it is estimated that the saving in fuel annually would be 10 per cent, or $600,013; water saved entirely, $335,286; other supplies, about a 50 per cent gain on steam, or $191,274; wages, principally in the reorganization of shop forces, $1,429,212; repairs, $2,206,492. Total yearly saving through electric traction over amount at present expended, $4,762,277. But as large as these alleged savings are, they would not amount to more than 2½ to 3 per cent on the necessary increase in capital which the change would necessitate.

That these slowly cropping facts adverse to the electrification of existing trunk-lines have received consideration is significantly reflected in the thorough course of training for apprentices which is now a feature on the Erie, Santa Fe, New York Central, Canadian Pacific, and many others. In the various schedules for study and practical instruction there is not an allusion to the electric engine, its construction, management or maintenance. The training as outlined plainly discloses that the end in view is to fit the boys to cope with conditions which could only prevail with steam-locomotives, and it would appear inconsistent, to say the least, with the advanced motive-power ideas of the present day, that the expense of this elaborate instruction would be incurred without the prospect of ultimate return in the shape of efficient service.

No Cause for Alarm.

Railroads are not exactly philanthropic enterprises. Many of them supposedly prosperous are staggering under heavy burdens of taxation and unjust legislation, and an incessant fight is in order to make both ends meet. Hence the policy of their management is keenly whetted to an appreciation of the facts which this article has summarized, and it is to be hoped that the latter are sufficiently convincing to delay even partial electrification to the far distant future.

It has been shown that, while terminal electrification pays in some cases, any further steps in that direction should not occasion any concern to the present employees of the steam roads. It would not indicate doing away with shops, roundhouses or locomotives, and only a very slight reduction in the immediate terminal repair force, which would be more than compensated for by large additions to the pay-roll of men qualified in electric locomotive maintenance.

The former locomotive engineers and firemen of the New Haven road are now employed on the motors at the same pay which prevailed before the change, and are still entered on the roster in the old familiar capacities. A machinist or boilermaker, anywhere, is as well justified to-day in encouraging his son to follow in his footsteps, as he would have been twenty-five years ago, because the time for the revolution, if it ever comes, is far from being at hand.

STORM-GUARD FOR ENGINEERS.

New Window for Protection of the Man at the Throttle on Which Dirt and Moisture Cannot Collect.

LEARNING from experience the dangers that beset the engineer of a locomotive when, in a storm, he is unable to see the track ahead through the front window of his cab, a Dunkirk, New York, man has invented a storm-guard which he claims is a solution of the problem.

There is no work more exacting than that of the man at the throttle of the steam-locomotive. On his vision depends the safety of hundreds of lives.

At times it is impossible for human eyes to see ahead on account of the weather. An engineer is seated in the engine-cab, looking out through an open space. By the arrangement of the device, he is enabled to look ahead without being subjected to a swift current of air and smoke. Neither can cinders, rain, nor snow be driven into his face.

The principal part of the device consists of the regular glass window of the cab and another pane of glass, somewhat shorter, about six inches in front of it. The sides are joined together and the bottom is open. A deflector, set at an angle, is placed over the opening at the top of the outer glass, the lower end protruding between the panes of glass.

In service, wind, rain, snow, hail, dirt, or objects of any kind, in the air, strike the deflector and are thrown downward between the panes of glass. When the engine is traveling at a good speed, not only is there a current of air downward from the deflector, but there is a slight draft out of the cab and down through the panes. For extreme weather conditions there is a small hinged window which comes down and joins the inner pane, closing the opening. Condensation on the glass is prevented by the current which rushes downward from the deflector.

Buck the grade; an aching back brings an easy conscience.—Objurgations of the Eagle Eye.

AT A RURAL TICKET-WINDOW.

BY GEORGE AUGUSTUS FULTON.

Some of the Joys of Dispensing Pasteboards and Pleasantness Through a Two-by-Three Hole in the Wall to Passengers Who Kick and Cuss.

THE following paragraphs will not be used as a means to determine why the earthworm cannot peel potatoes with a gimlet, or why the sawhorse doesn't saw wood, but simply to call the attention of the traveling public to a few of the travelers with whom we come in contact.

* *

Don't get it into your head that you are the only passenger on the train.

* *

If you are a traveling man, commonly called a "Knight of the Grip," you should keep on playing that game of "42" at the hotel until the train pulls into the station. It makes no difference if you have six or eight pieces of baggage to check, the ticket-agent will have plenty of time to wait on you, even though they are stacked up at the ticket-window seventeen deep.

* *

Be sure and cuss the agent, railroad company, and everybody on the train, even though you only go to the next stop and probably pay as much as twenty-five cents for your ticket and twenty-five cents excess, all of which expense is paid by your house.

* *

Then we have the negro preacher with his clergy permit, who has been sitting in the waiting-room "hobnobbing" with the "sisters" until train time, when he prances up to the ticket-window, planks down his clergy book, calling for a half-rate ticket in Texas, while other full-grown men are paying full fare.

* *

Then an old Son of the Soil strolls into the waiting-room, looks at the clock, combs his whiskers with his fingers, and asks if that is the correct time; proceeds to pull a dollar-and-a-half nickel-plated duplex movement, with rawhide fob attachment, from his overall pocket, and asks to compare with your watch, to know if he has the exact time, only to find that he is expecting his wife's sister from down Brushy Creek next week, and "'lowed as how I was mighty nigh kerrect," although he was about sixteen minutes slow according to the regulator. With a contented chuckle he turns from the window, swaps the half-pound of "Star Navy" from one side of his mouth to the other, and ambles out on the platform with his calloused and sunburned hands rammed deep in his pockets to see "them kyars come in."

* *

I once remember of an instance where an "old nester" in east Texas came up to the ticket-window leading a long-eared mongrel by a string, and wanted to buy a ticket for the dog to a station nineteen miles distant. When our friend was referred to the baggageman, he reluctantly turned from the window with a look of utter disgust, muttering something about "these new-fangled ideas."

* *

The old lady with the black handbag and an armful of bundles is still with us with the same old stereotyped question, "What time is that four o'clock train due?" and who says, "Could I leave these hyar bundles hyar in your charge while I walks up-town and gets me a bottle of snuff and some candy for the children to hum? I clean fergot 'em while I wuz up thar."

* *

Don't pull your wallet out at the ticket-window, take out a twenty-dollar bill to pay for a dollar-and-forty-cent ticket, and accuse the ticket-agent of short-changing you, only to find you were mistaken, and that you had kept four or five passengers from the ticket-window while you were putting on your little show.

* *

Here he comes now! The ever-jovial traveling man. "Give me a ticket to Hearne. All right, how much? Here's your money. Give me the baggage-checks. I'll put them on for you. Have a cigar? What's the use? Cheer up, old man. We all have our troubles."

As he sees the station porter pulling hard on the baggage-trucks, he pushes up behind, turns, shakes your hand, and says:

"Good-by, old man. I'll see you again in thirty days."

ON SHORT TIME.

BY HORACE H. HERR.

Author of "Being a Boomer Brakeman," and "The Evolution of 'Almost.'"

Bartholomew E. Goldsworthy Takes His Name and a Few Other Things to Arizona.

CHAPTER I.

Why He Went to Arizona.

THE Honorable Charles Flynn, who dispensed justice and general merchandise at Winslow, always insisted that but one of two calamities caused men to seek the dry solitude of Arizona—poor health or family troubles.

Bartholomew E. Goldsworthy, aside from having a six-cylinder name, possessed an anatomy of such generous dimensions as made him look like a human tandem compound.

The first time he paid his compliments to the Harvey House dining-room at the terminal, he calmly signed his name to the switch list, turned it in and, with no apparent distress, found trackage for all the loads the lady working the field set out.

This was circumstantial evidence that, so far as general appetite and health went, he had no need for either a bad order-card or a dry climate.

If the Honorable Charles really knew what he was talking about, Bartholomew E. Goldsworthy came to Arizona on account of domestic infelicities.

Bartholomew looked as much too big for the position of roadmaster as he did for the suit of overalls he purchased the day he broke in on the time-table life of the terminal.

It may have been his size which brought him the job, for the superintendent had just terminated an experience with a man who was too small for the place; and, as the Honorable Charles had often remarked, "Better have the plug too big for the hole than the hole too big for the plug."

At any rate, Bartholomew dropped from No. 7 one morning, and when No. 8 went through that night he was roadmaster for the third division, where one hundred and forty-three miles of track spends all the time it is not going up a mountain, going down one or around another. In his new position, Bartholomew was in duty bound to see that about three hundred Mexicans and Indians received nothing from the company under false pretenses.

According to the eminent member of the territorial judiciary already mentioned, it is no small task to teach an Indian which end of the spike goes into the tie, and to thoroughly convince him that he is wasting time endeavoring to drive the big nail through the base of the rail or an angle-bar.

Speaking with some authority, no doubt, the jurist further deposes that, in Mexico, a head is made on both ends of the match for the reason that the native would otherwise strike the wrong end for an hour before realizing that, in order to get results, he must turn it around.

It is self-evident that there were conditions surrounding the position of roadmaster on the third division which made it less desirable than some other places in the official list, and that Bartholomew accepted such a job, in such a country, would indicate that his domestic infelicities may have been of an extraordinarily turbulent nature.

While the division pay-roll insisted on maintaining the dignity of the roadmaster's office by carrying his full name, in less than a month after his appointment Bartholomew E. Goldsworthy underwent an operation.

A large portion of the alphabet was amputated from his personal label.

However, as Bart Goldie appeared to be just as large a man, just as active and just

as regular in his eating as had Bartholomew E. Goldsworthy, it is reasonable to suppose that the operation was not only quite successful, but painless.

When I met Bart Goldie the first time, I was sure that I wasn't going to like him, and just as sure that I would be particular not to let him know it.

It was the second summer the cinder pit was in operation. One thinks of a cinder pit as a hole in the ground, but unless one is able to imagine a very deep hole turned inside out and upside down, the cinder pit was so far from being a hole in the ground that it was a mountain of volcanic ashes.

Instead of digging down for the cinders, a few charges of dynamite, judiciously placed along the big cliff, would bring down more cinders than three crews could haul away in a day.

Over one hundred laborers were used in the work at the cinder pit, and another hundred took care of the unloading and ballasting at various locations along the right-of-way.

Bart Goldie came onto the job as roadmaster just after the pit had opened that summer. After he found out what he was against, he made his headquarters at the pit, making little side trips over the division, keeping in close touch with the progress of the work.

Coming east one afternoon, a few days after the pit had opened, I got an order at Ash Fork to set out my string, pick up all the empty cinder flats in the yard, run to the cinder pit and tie up.

Of course, I said a few uncomplimentary things about certain individuals connected with the road, which found a unanimous indorsement from the entire crew.

After showing our independence by taking thirty minutes more time than usual in which to eat and putting it down on the delay report in a bold, bad hand, we went out to shuffle the cars and make up our train.

It was turning dusk when we pulled in on the siding at the pit and tied up for the night. It was evident that we had drawn our summer vacation; we were to be one of the three crews in the hauling service for some time, at least, and, I guess, every one on the crew felt rather bellicose.

I had reached the popping-off stage, myself, and, just as soon as the doghouse was in the clear, I started out to find the *jefe*, as the Mexicans call the big boss, and unload some of my pent-up ire in his vicinity. As a result I met Bart Goldie.

I found Bart engaged in a rather extraordinary pastime down at the end of the spur, where a dozen outfit cars served as temporary quarters for the foreign population.

It seems that Goldie's education, while it was really college-made, was mighty weak on foreign languages, especially Spanish. Quite naturally he had been forced to make up the linguistic deficiency by a generous use of his hands, so generous, in fact, that his fist, when neatly folded and placed in a position near one's nose, looked like a Gould knuckle.

It had come in contact with Romero Garcia's left lamp. When Romero had sufficiently returned to consciousness as to be positive that he had not been caught beneath a cave-in from the cinder cliff, he did not take kindly to the roadmaster's method of argument, and planned to take summary revenge.

Romero, unlike the average care-free Mexican, was of fair size and of sullen and defiant disposition. He ruled his outfit through brute force, and had been a source of trouble long before Bart Goldie came on the job, for he stirred up dissension on the least provocation.

It seems that Goldie had insisted that the gang was not loading the flats with a reasonable degree of speed. When he found Romero sitting in the shade smoking a cigarette, he motioned him back to work.

Romero became sullen, and his sullenness spread with strange contagion to the rest of the gang, and, during the course of the afternoon, Romero, acting as ring-leader and spokesman, informed the new *jefe* on certain little matters and endeavored to run in his bluff. Goldie had, in his rebuttal, introduced a knockout argument in the form of his right fist.

This was several hours before the 660 pulled in on the siding with the cinder flats, and, quite naturally, when I walked around the outfit cars and found a six-footer doing a juggling act with a track gage and a Mexican, I wasn't sure whether I had suddenly dropped in on a Nicaraguan revolution or a vaudeville performance.

Goldie thoroughly convinced several of that gang that a gage-iron can be used for other things besides measuring the distance between rails, and that night they took Romero and two of his mutineers down to the terminal for treatment.

With three of the gang bowled over, the rest of them happened to remember that the *tortillas* and *frijoles* were ready. Wifey would be awful angry if she had to wait

supper on them, and a prairie dog didn't have them beat very much when it came to getting into the clear in a hurry.

When the show was over Goldie turned about and saw me standing near. Of course the light wasn't extra good, and I had thoughtlessly picked up a side-stake as I came up.

"What do you want? I'm running this job!" It was evident that Goldie was still foaming a little. I promptly dropped the side-stake and hastened to assure him that, from all appearances, he was running the job and that I had no desire to make application for his place.

When he realized that I was just a harmless conductor, and if not thoroughly civilized at least partially domesticated, he began to laugh.

"Guess I'm getting nervous," he remarked. "Every time I hear a fellow coming up behind me I think he wants to play mumble-peg on my back with a butcher knife. Talk about your football games. Bucking center is parlor pastime alongside this job. That gang will work the way I want, or I'll put them all in the hospital!"

It was the way he said that last sentence which prejudiced me against Goldie. There was something of the bully in his manner. That evening, over at the mess-room when we were planning the work for the following day, he remarked:

"To-morrow morning, we will leave here with forty loads and—"

"We have never hauled more than thirty-five with one of these hogs," I interrupted.

"We'll take forty loads," he continued, just as if he had not heard me. "We can get away from here by six o'clock, get down to the curve below Riordan and have the cinders unloaded before the passenger-train runs us in."

Of course, after having been accustomed to leaving the pit at seven o'clock—as we did the first season it was operated—that one hour made me very enthusiastic. We had never tried to unload even thirty flats on the Riordan curves, ahead of the morning passenger, and I made a mental note that Mr. Goldsworthy, our new roadmaster, had some few things to learn in operating cinder trains.

But the next morning, when he came down and almost kicked in the caboose-door, I realized that we were going to leave at six o'clock with forty loads just as he said. That's just what we did, and we unloaded the string and were well in the clear when the passenger came along.

After I had been working with him for a week, I learned that when Goldie said: "We are going to do so-and-so," you could take it as a part of the Standard Book of Rules. While he evidently knew more about college football than he did of train tonnage and cinder plows, he had decided views about ballasting track and improving a right-of-way.

We had been working about ten days and it began to look as if the train-master had lost us all together. I began to feel a longing for an emery-wheel and a real bath with a sandpaper rub-down. We had been eating canned corn and corn in the can, three times a day, until every time one of us tried to yell it sounded like the tin solo at a charivari.

Then the 660 got the idea that she was a street sprinkler and went to leaking like a sieve, so, for the good of the order, I wired the train-master to run us in to Winslow for general repairs.

Nothing hurts a train-master more than light mileage. The Old Man, rather than let us run from the pit to the terminal with an engine and a caboose, sent a message ordering us to run extra and do whatever work Goldie might find for us on the way in.

There was a slow order out on bridge 356, over Cosnino Creek, and it seems that a cloudburst up in the mountains had sent a torrent of water down that way, doing quite a little damage to the embankments.

"We will take five cars of cinders," remarked Goldie. "Pick up the section gang at Cosnino and see what we can do at the bridge."

Of course, puttering around there for several hours, with an appetite which would have made business mighty good at the Harvey House gnawing at my vitals, particularly appealed to me. But we did it just because Goldie said we would.

When we got down to the bridge, we found the water hurling down a ravine which paralleled the track for a half mile. Where it emptied into Cosnino Creek at the bridge, it had taken away enough of the bank to let two telegraph poles down, and the wires were swishing about in the current.

I sent back a flag, and Goldie began to exercise his sign language for the benefit of our foreign passengers, with the result that they were shortly working a bit faster than they had ever worked before.

While I acted as a sort of straw boss over the unloading, Goldie took four of the Mexicans down to see if he could get the tele-

graph wires out of the water. While the water in the ravine was not more than waist deep, it was running swift, and Cosnino Creek was really a torrent.

After hauling and tugging for some time, Goldie managed to get the wires free from the poles, with a view of fastening them on the superstructure of the bridge, until the linemen could come out and restring them.

The Mexicans, being by nature very hostile to a bath, didn't take kindly to going into the water, but finally three of them were either persuaded or frightened into wading out to attach a rope to the wires so that they could be pulled over to the bridge.

I guess the natives didn't understand the nature of a telegraph wire, for when they got out to them, instead of putting the rope about them, it looked much easier to just take hold and pull them in.

They drew the grand surprise. The minute their hands closed about the wires, there was a bunch of yells that would have made an Apache war-cry sound as gentle as a benediction. Two of those Mexicans came out of the water, scrambled up the bank, and started down the track. I'm a goat if you could have caught either one of them with a Prairie type on a down-grade. Most of the time they were running wheel to wheel, for when one would get ahead, the other would reach for him and pull him back, and if you ever see two Mexicans, just touching the high spots, headed toward the line, don't try to stop them, for they are some scared.

The third one furnished the real excitement, and, incidentally, obliterated my prejudice against Bart Goldie. He let out one agonizing screech and went under. He came up in a second, and started to produce another vocal noise; but the best he could do was to give us a very realistic imitation of a whale spouting; then he went off his feet, and the swift current shot him out into Cosnino Creek.

I knew it was all over except burning the candles—but I hadn't figured on Goldie.

By the time I was off the cinder flat, Goldie had reached the steep bank. I knew that Cosnino Creek below the bridge was little less than a cañon, and that it would be impossible to get out of it without the aid of a rope.

I wanted to explain this to him, but by the time I had covered half the distance to where he stood, he had thrown off his hat, taken a festive skip and a hop, and just as if he was taking his first plunge in the old swimming hole, he went in, head first.

The bank was thirty feet high and almost as smooth as a building wall, and I was positive that the job of roadmaster would be open to competition again within thirty minutes.

Nobody ever accused me of having a brain-throb or an idea, so I guess it must have been "Dude" Bowling, my brakeman on the cinder end, who went to the caboose after the rope.

I know I was hypnotized by the sight in the water, so that all I could do was follow along the bank and make mind bets that "they'll both stay down this time."

I guess I lost a million dollars before I realized that Goldie had found a piece of rock sticking out of the bank and was holding to it with one hand and keeping the Mexican's head out of water with the other. Then Bowling came up with the rope, and the rest was easy.

Goldie held to the rock while Bowling and I pulled the Mexican out, and then we dropped the rope over for the roadmaster. In a few minutes he, too, was standing on the top of the bank. The Mexican wasn't standing, understand. He was more or less water-soaked, and wasn't a bit enthusiastic about coming back to life. But Goldie wrestled him around for ten minutes, and he finally began to mutter something about "the much grand *jefe*," which would have embarrassed Goldie if he had fully understood it.

From that day on, Goldie was elevated to a station of reverence with every Mexican on the division, and some of the American population that I know decided they thought a great deal more of him than they would care to admit in public.

"We won't say anything about this when we get into Winslow," remarked Goldie, as we climbed on the caboose; and since Goldie said we wouldn't, we made a noise like a long silence, but it finally got out through the Mexicans.

On the way in that evening, I found that Goldie had made no permanent arrangement for his roundhouse accommodations, and I suggested that he join me in my two-room adobe over in Old Town.

It was only a few hundred yards from the tracks, and there was a cook-stove and a few pieces of chinaware, not to mention the furniture, so that a fellow could live very comfortable at a small cost.

The idea appealed to the new roadmaster, and he went over with me to try it out. The result was that he camped right there, and,

in less than a month, I was convinced that the Honorable Charles Flynn was correct.

Family troubles brought Goldie to Arizona.

About the second time we took our chairs outside and leaned back against the adobe wall, when all the fireworks were hung out in the sky and the cool breeze from the San Francisco mountains drifted down to twist the smoke from our pipes into funny shapes—about the second time we sat out there, and heard the laughter drifting over from a Mexican dance which was going on farther down the crooked street, and the dreamy guitars and mandolins in the strains of "La Paloma"—he came clean with it.

Bartholomew E. Goldsworthy had been playing the rôle of the sheep with the brunette wool. He had been educated for a civil engineer, and had turned out a champion football player.

By putting two and two together, I managed to figure out that he really knew the difference between a "T" square and a surveyor's chain, and that his family troubles were not so much with his own family as with a young lady of another family who had expressed an aversion for black sheep.

I've always been so busy trying to keep my name on the pay-roll and my caboose in the clear, that I have had no time to give the woman question much consideration; but the Honorable Charles says that if it wasn't for his wife he would never have owned the only general merchandise emporium in Winslow, and he would never have been elected to the dignified position of justice of the peace.

So I suppose there are really some women who could put enough steam in an old scrap-pile like me to make him get out and make the running time with his full tonnage.

As for Bart, he seemed to be on short time. There were certain circumstances which he discussed very guardedly, which convinced me that he wanted to do something worth while and he wanted to do it quick. It looked as if it might be a case of two fellows running for the same station, one of them coming down grade and the other going up.

Bart had the up-grade to climb, and a poor start, and, knowing a few elemental truths about human machinery, I couldn't see how he was going to win when he was out there by himself, with nothing much to think about but the way he had slammed the gate in the face of opportunity.

Since they have put a double track around the world, the old ball seems to have shrunk considerable. No matter where you go you're pretty close to some place else, and it surprises a fellow when he jumps a board bill in El Paso and meets the landlady in Chicago a year later, or when he bids a friend a fond farewell in Mexico City, only to meet him in New York.

It's a very small world after all, and I'm not surprised to know that Bart Goldie should come to Arizona for the express purpose of hiding himself from a certain young lady, until he had made a man of himself, only to put on his working-clothes and meet her here face to face, when he hadn't had a shave for a week.

One night, over at the cinder pit, Bart came into my caboose and picked up an old official list, which gives the names of every one connected with the management of the road down to the division superintendent's hired girl.

He looked it over rather careless-like, and started to throw it back on my desk, when a name near the top arrested his attention.

"'A. R. Martin, General Manager Western Lines,'" he read. Then he just let the book slip from his fingers. After a minute he said: "Isn't that funny?"

"Funny," I replied. "Funny, I should say it is. I've laughed myself sick over it many times."

I guessed my sarcasm lacked steam, for Bart never noticed it.

"I'd like to see A. R. Martin," he continued. "But of course he can't be the same man."

"If you want to see him," I volunteered, "you will probably have plenty of opportunity this summer. I understand he is coming through here next week. His family generally puts in several weeks at the Grand Cañon."

If Bart said another word that night, it was after I had gone to the hay, and when I once get into the hay—well, I've been known to sleep several hours after dawn when I knew my pay-check was waiting for me over at the agent's office.

CHAPTER II.

The Lady at the Wreck.

IF you ever attended the B. of R. T. annual ball at Winslow, you know just as well as I do that it was attended by every railroad man who was fortunate enough to be in town—wearing his best pair of overalls.

The Winslow Symphony Orchestra practised from one year to the next just for that ball, and then there were times when it would run out of pieces and have to go back to the first number; and that was a real orchestra, too.

There was "Dad" Matta, the human cube four feet any way you measured him, who played the violin what time he wasn't selling chili and beans over in Old Town; "Dutch" Mattison, who could blow more music out of a flute than I could churn out of a hand-organ; "Ken" Gillett, who could triple-tongue a cornet until you was sure he would stutter when he tried to talk; and the little lady with the brown lamps who could ramble over that piano until you stood about as much chance of counting her fingers as you would the pickets on a fence from the window of the limited when she was four hours late and running down-hill.

Sometimes the ball was held in December, and sometimes in July. One year it run in sections, the first going by in the winter and the second section coming along in the summer; but as it was warm in Winslow all the time, the season of the year never cut much of a figure except on the price of eggs, which were high in the summer and higher in the winter. I suppose the hens were more to blame than the heat.

The year that Bart Goldie came to the third division, the annual ball was held in the middle of July—not that Bart was there, but that my crew just happened to be in town, thanks to the disposition of the 660 to choke up in the nozzle.

I planned to be there in time to see Mayor Bauerbach, who owned the only dress suit in town, lead the grand march; and I promised myself that when the janitor locked the hall the next morning, he would have to put me out.

I put in all afternoon creasing my black trousers and trimming some of the fringe off my best coat, and I fixed up my shoes so that they looked as if they'd just been turned out of the paint-shop.

When the six o'clock whistle sounded over at the roundhouse, I decided that I would put on my good clothes, treat myself to supper in the Harvey House dining-room, and get used to myself being in company.

More than once I wished that Bart could have been there, for a college education don't have much of a chance to show off when it's associating with Mexicans and Indians all the time.

Over on the siding near the offices, private cars Nos. 8 and 11, the latter the traveling office for the division superintendent, were lined up together. I walked down to the despatcher's office to take a look at the board, and I had to laugh when I saw Bennett marked up for Extra West at 6.30 P.M.

If there is one thing that Bennett would rather do than draw his pay-check, it is to dance. It took no vivid imagination to picture Bennett when the call-boy caught him. Just as I was leaving the office with my glad flags out, he came in to get his orders and register out.

"Going to the ball?" I asked.

"No," he snapped.

"Oh, that's right," I continued. "You don't care much for dancing."

He turned around and gave me a look that would have stopped a wild engine, and not only requested but demanded that I take a long journey to a warm climate.

Instead, I went as far as the dining-room, walked right in as if I had time-card rights, and took a chair at one of the seventy-five-cent tables.

I had hardly decided which dishes I would have switched out for me, when in walked the Old Man, and A. R. Martin, the general manager; and, come to think of it, there were two ladies—but I saw only one for the time being.

During supper—I suppose Bart would have called it dinner—I kept my eyes on that young lady. She was a little the best I ever saw—a real observation Pullman with all the latest improvements.

She looked like a million dollars' worth of one-dollar bills, and as I finished the last of three different kinds of dessert, I just says to myself: "Young lady, if you ever want a partner in a Home-Sweet-Home waltz, I'd sure like to have the job."

In fact, I hadn't got her off my mind when the music started for the grand march. I was standing there looking around to see if there was any young lady in the hall who even remotely resembled her, when some one touched me on the arm and I turned about to meet the freckled, oblong, wall-eyed face of the call-boy grinning at me as he stuck that dirty book before me.

"Extra West in ten minutes," he said, like a parrot that didn't know anything else.

The mayor was just coming onto the floor, his lady on his arm, and his white shirt in that low-necked vest showing up like a new coat of paint on a signal-block.

"Hurry up an' sign, 'cause I've got to find yer shacks yet."

I never wanted to see how hard I could kick some one as bad as I did right then. I believe I could have put that call-boy on the peak of Bill William's mountain from a standing start.

"Well sign it, Baldy, sign it. It's the wrecker, and I've got to get th' rest of yer crew."

With music in my ears, I put my official signature on the book, and started for the despatcher's office feeling as festive as if I were riding a pilot-beam into a head-on collision.

When I reached the office I found the wrecking outfit standing on the main line and the switch engine was coupling into the two private cars, preparatory to bringing them out and setting them on behind my caboose. I hastened into the office and asked the cause.

"Bennett's in the ditch beyond Moqui!"

If I had that man's disposition, I would stay away from a railroad. Just because he couldn't stay in for the ball, he goes out, and the first little bridge he comes to, he puts two engines and eleven cars through it, just so some other fellow will have to leave the festivities and go out and pick him up.

"Any body hurt?" I asked.

"Not a soul," answered the chief.

That showed plain enough that it was a put-up job.

"How soon will you be ready?" I asked.

"Just as soon as you sign these orders."

"What engine do I get?"

"Take one of the yard engines. The 2303."

There I was with my best trousers on and a new shine on my shoes. There wasn't anything to do but sign the orders and get out of town.

When I took the orders out to the engineer, I looked to see just what I had in the way of a train. The wrecker and the coal-tender, three cars of ties, a water-car, tool-car, my caboose, and private cars 8 and 11. The Old Man and the general manager were going out with me, and then I heard a voice which sounded a great deal like that of the young lady I had seen in the dining-room.

"But, father," she was saying, "I never saw a real wreck in my life, and I'm going along."

"It's no place for a woman, Lois. You'll just be fatigued."

The idea of a man being the general manager of a railroad and saying that a wreck is no place for a woman, especially a beautiful woman. But of course, I couldn't stop and tell him that he was wrong, so I just yell, "Aboard!" and gave Denny Reagan the high-ball. As the young lady was on the car platform when we started, the question solved itself and she went along.

The 2303 had seen better days, but Denny Reagan got more out of her that night than I ever dreamed she had. Of course, she made a few little side trips out into the surrounding country; but she always came back to the rails and kept running, and just so long as the whistle worked, Denny could make any engine run.

We dropped down through the Moqui sag, the old boat shooting a stream of sparks from the stack that would have made the tail on a comet look like a glow-worm, and while we hardly made the limited's time up Moqui hill, we were going at a pretty fair clip when we topped the ridge.

Bang! bang! went the torpedoes, and the tail lights from Bennett's caboose showed up less than a mile down the track.

The wreck wasn't so bad as it might have been, for both engines of the double-header had crossed the little bridge, and, while they were on the ties, they were still right side up.

The piling under the short trestle had burned away. The eleven cars next the engines were scattered about in various degrees of dilapidation. Some of them were ready for the tooth-pick box, while others would have made better kindling-wood.

The section hands from Moqui beat us there, but the Mexicans were so busy cachéing out bottles of beer and shoes that they had done absolutely nothing else.

Of course, the first thing was to get the steam derrick down to the wreckage and swing it off the right-of-way. We coupled onto Bennett's caboose, cut off the string that was still on the rails and pulled them back to the siding at Moqui, switched the wrecker ahead and went back to put in the balance of the night opening up the track.

When we got back to the wreck, another derrick and wrecking gang had arrived from the cinder pit, and with it was Bart Goldie.

From the minute he stepped off that wrecking train things began to move. The Old Man and he had a very brief conference, while the general manager stood by and listened.

"It's up to you to say just what you want to do, Mr. Arnold," I heard Bart say to the Old Man. "If you want to stand for the delay, I can build a shoo-fly around this in twelve hours."

"But what do you think best?" questioned the superintendent.

"If you were not here and I had to act on my own responsibility, I would open the main line in the shortest time possible," replied the roadmaster.

"Which means—"

"Which means that I would roll some of these badly demolished cars down the bank."

Then the general manager spoke in a modest voice as if he was apologizing for being on earth.

"Don't you think, Mr. Arnold, that it is always a pretty good rule to clear the main line as soon as possible, especially when we have mail-trains coming down on us and the government checking up every trip we make?"

"It's expensive," volunteered Arnold.

I suppose Bart's idea of railroading had not prepared him to see officials stand back and study over a move as if they were playing a game of checkers. At any rate, the two officials were still discussing the question when Bart started his men to work. By the time they had decided to clear the track at any cost, he had already rolled two box cars down the bank.

The Old Man found himself taking orders from Bart just the same as the rest of us. The new roadmaster, standing in the very center of the débris, on a box car which had been stood on end, was directing the two derricks and a half dozen various squads of laborers at the same time. If he made a false move, it would take more of an expert than I to tell just where it was.

Off to one side of the track, one gang had started to burn some of the wreckage. The big fire flared up, making a ragged silhouette of the entire mass. Bart's six feet of nerve and muscle seemed to stick out as the big feature of the picture.

I was recalled to the fact that there was a lady in the wrecking party. Martin was standing off to one side watching the work, apparently well satisfied with the progress being made. I had just come down off the apex of the pile of wreckage following a consultation with Bart, and, as I passed by Martin, I heard that musical voice again:

"Who is that man standing up there, father?"

"That's the roadmaster."

"But what is his name?" insisted the young woman whom I now distinguished in the shadow by the general manager's side.

"Goldsworthy, I believe," replied her father.

"Isn't that funny?" After a little pause she continued more for her own information than for the enlightenment of her father. "But he can't be the same man."

About that time, I was beginning to believe that it really was funny, for Bart had said something like that the night he was looking over the official list and found Martin's name at the head of it.

"Well, daughter, I don't know exactly what you are talking about, but I hardly think he is any one you ever saw before."

As I walked away, I had to think of the time I was standing on a street corner down in El Paso, and a fellow kept looking at me until I began to wonder if I had ever boarded with him. Finally I spoke up:

"Was there something that you wanted, sir?"

"I was just thinking," he replied, "that you look as if you might be able to change a five-dollar bill for me," which simply goes to prove that when a fellow thinks on surface facts he is always just about four dollars and ninety-five cents wrong, and I was just about ready to bet my monthly insult against a blind gasket that, after all, he was the same man.

For the next half-hour, I watched Miss Martin more than I did the wrecker, and she watched Bart Goldie more than she did anybody or anything else.

If Bart had known that the general manager and his daughter were standing less than a hundred feet from him, much interested in his work, he could have done nothing more to appear to the best advantage.

Of course, I don't know what the girl thought about him, for no one can tell what a woman thinks except the woman herself, and about half the time she's wrong. But when Martin insisted on taking his daughter back to the private car, just as they were passing by me, I heard him remark:

"That man Goldsworthy is a wonderful worker. Wonderful! I shouldn't be surprised but that he gets this litter cleaned up by daylight."

"I should like to get a good look at him," said the girl, "close up, so I could see his face."

"You'll probably have the opportunity in the morning, for—" they passed out of my hearing and I was half convinced that Martin was, after all, a man of excellent judgment, not only of daughters but of desirable roadmasters.

The sun was just coming up over the mesa beyond Moqui when Bart gave me the order

to take the wrecker back to Moqui, and bring back a couple of loads of ties.

The track had been cleared, and all there was left to do was to replace about two hundred ties, and put in a couple of rails. With the trestle cribbed, the main line would be in temporary repair.

I suppose Reagan, being used to kicking cars around in the yard, handled our train a little rough for private cars, for when we got the ties ahead at Moqui the Old Man came out of his car, and I could tell, by the red spots on his face and the way he hadn't combed his hair, that he wasn't in an angelic mood.

I couldn't help but wonder how he would have felt if he had been up all night, wearing a pair of shoes that were two sizes too small for him, getting mud and oil on a pair of black trousers which, besides having cost $5.50 two years ago, had been hand-pressed the day before; and on top of that knowing that the mayor was a strutting around the ballroom down at Winslow with a sparkler in his boiled shirt as big as an electric headlight.

I couldn't help speculating on what he might have done under those circumstances if a dish-faced piker like Bennett had kept asking him, every time he got within telegraph distance, if he could have the pleasure of his company for the next dance. I really would have enjoyed being superintendent that night. I would have tied a piece of hardware onto Bennett the size of a Baldwin boiler.

When we started back to the wreck, the Old Man climbed on with us, going down to see how much fault he could find. Bart had the gang cribbing the trestle when we got there. I admit that the crib looked as if it had been built contrary to all the laws of statics. It was a fine imitation of a rheumatic pig-pen.

"That will never hold a train," growled the superintendent, when he reached Bart.

"We will see," replied the roadmaster. Knowing Bart, I held my breath for a minute to see if the superintendent would argue the question. He never said another word on the subject—not there at least—but went nosing about, looking into every nook and corner as if he had lost his carfare.

Goodness only knows what he thought of the job, but so far as I am concerned, while it may have been lacking a little finish in spots, it had been done in less time than I had ever dreamed possible. Two hours later, when No. 7 whistled for the board at Moqui, the operator gave her the white wing and she drifted down to the scene of the wreck.

Bart and the superintendent were still down there. I suppose the Old Man was just waiting to see how far into the ravine one of the Pullmans would go when it hit that crib, which had been built like a pyramid stand on its head. We had tried it out with the wreck trains, and it had hardly sagged an inch. At the distance of half a mile I couldn't tell just how she acted under the varnished cars, but I could tell even from that distance that the passenger-train had not stopped, and when Angel, the next station beyond, "OSed" No. 7, she was on time.

I was still standing in the center of the track watching Number 7 as she crept across the damaged trestle when the general manager walked up to me.

"Number 7 is on time, isn't she?" he asked.

"Be here right on the dot," I replied, glad of an opportunity to be of any little service to the father of that daughter—more so since he was working on the same road.

"Then the wreck has caused no delay to our passenger service?"

"Not a bit," I answered.

"Isn't that rather rapid time in cleaning up a mess like that?"

"Well, Mr. Martin," I replied, "I've helped clean up a good many of them, and this is the best job in the shortest time I ever heard of."

I just made a mental note that Bart Goldie owed me four bits for that boost.

"Are you going back to the wreck soon?" asked the general manager.

"I'll run down to pick up Mr. Arnold and Mr. Goldsworthy, before going into Winslow. I'm waiting for running orders from the despatcher's office now. Don't expect to start back until Number 2 goes in, as Goldsworthy wants to see her across the crib before he leaves."

"When you get down there, please tell Mr. Goldsworthy that Mr. Martin wants to see him in car No. 8, when it is convenient for him. If he has nothing to hinder, tell him to come over and ride to Winslow with me."

"Yes, sir, I'll tell him," I answered.

"And I'll be much obliged to you, sir," replied the general manager. I really felt for the first time that he was a decent sort of a fellow—almost as near human as a brakeman or a conductor.

Number 2 crossed the crib and came by on time. When she was over the switch, we ran around the string with the 2303,

brought the two private cars out on the main line, went in for the rest of our short train, and pulled out and coupled the varnished carlets on behind.

I went over and insisted that Reagan handle them with plush gloves, and he really did a nice, ladylike job of it. After having backed down to the site of the wreck, we had to wait another half-hour for Bart.

While we were waiting, I went over to where he was and delivered the message from the general manager. Bart accepted it with the joy of a prisoner taking a twenty-year sentence. He looked down at his khaki clothes—that is, they were once khaki, they were now benzine, sand, molasses, grease, and in one spot, nothing at all. During the night, he had grown careless with one of the fires and had lost about four inches off the bottom of his left pants-leg.

After I had delivered the message, he pulled a wad of waste from his hip pocket, wiped it across his brow, not knowing that it left a smear of oil; rubbed his left thumb, which had been badly mutilated by a falling jack, and muttered:

"And I have not had a shave for days."

"Never mind, Bart," I cut in, feeling rather peevish at the way he stood on a little formality of that kind. "Come over to the caboose and I'll have the rear shack give you a shave and a hair-cut, manicure your finger nails, and—"

Bart slowly looked me over. He noticed the fading crease in my trousers, the remnant of a shine on my shoes, and the stiff hat I was wearing—and he smiled.

"No," he says, "if Bowling turns out such dude conductors as you, I guess I'd better stay away."

"Never mind," I answered, "I hain't been livin' beyond my income. I can afford all these good clothes. Bart, you're a friend of mine, and I know you'll be pleased with my good luck. I made a fortune last night."

"Gambling?" asked Bart.

"Yes, gambling. I won so fast I couldn't keep count. You remember that night up at the pit when you found something so funny in the official list. You read A. R. Martin's name, then you looked wise and remarked that it couldn't be the same man. I didn't think much of the remark that night, but, having nothing much to occupy my mind, I went to gambling on it. Let's see, at midnight, I had won $1,847.27. I bet myself that he was the same man."

"And how do you know you won?" asked Bart, with an imitation smile.

"By the way you kept away from him, and by what his daughter said."

"His daughter!"

If Bart had not been impressed with the train-load of money I had won, he was real excited over a portion of my proofs.

"Yes," I replied, "his daughter. She is back there in the private car."

"Baldy, have you a razor in your caboose?"

"Nothing but a broken looking-glass, Bart."

"Well, tell Mr. Martin I'll be over in a few minutes."

As Bart climbed onto the caboose to wash some of the soil from his anatomy and dig the cinders from his hair, I gave Reagan the high-sign for Winslow and climbed aboard private car No. 8, not feeling exactly sure whether I was the general manager's office boy, Bart Goldie's valet, or just a common conductor who had been absent from the annual ball of the B. of R. T.

(To be continued.)

AN ODD LOCOMOTIVE.

AN electric locomotive, that straddles a line of moving vehicles in the same way that a farmer might straddle a row of growing vegetables in crossing a field, is a commonplace sight near Bremen, Germany. The locomotive is used for hauling canal-boats, and runs on a quay that has to be kept clear for the passage of drays and other vehicles. Consequently, it was built in the form of two U's, connected by a girder. One side of the locomotive runs on a track on one edge of the quay and the other runs on a track on the opposite side, while vehicles have a clear passage under it.

A good crew can usually tell the time by the steam-gage and the schedule card.—Philosophy of a Despatcher.

Pioneers of the Canadian Pacific.

BY JOHN WALTERS.

TRANSCONTINENTAL railroad building seems to belong to such a dim, remote past, that it gives one a creepy feeling at first to talk with the men who actually carried on the work of one of its most spectacular achievements. But after meeting a number of them and finding them still enjoying life, and as young as ever, one begins to feel that the C. P. R. isn't so ancient, after all.

Pushing a road-bed through the wilderness of southern Canada, on to the western limits of British Columbia, was a heavy undertaking, and now and then there was excitement enough for every one, and plenty of trouble always in store for those in search of it.

Experiences of the Rough and Ready Crew Who Helped to Build Canada's Greatest Railroad, Many of Whom Are Still Holding Down Their Old Jobs.

OF course, J. M. Egan, who was superintendent on the Canadian Pacific Railway during construction, from 1881 to 1886, didn't mean to tie up the road when he sent out a message, a couple of years ago, announcing that he was making a trip over the line, and would be glad to meet all the old-timers once more. He simply didn't realize that on the C. P. R., as everybody in the Dominion calls it, no one ever dies and still fewer resign.

The history-makers of the Canadian Pacific are still walking around, hale and hearty; and so numerous are they that Egan thought his car was being mobbed when he pulled into Medicine Hat. He was delighted to find that it was only the old gang, which had taken his message to "all," literally. No other railroad on earth can boast such a complete living history as the C. P. R.

I had hardly got settled comfortably on one of the through trains which cover the longest run on the continent, from Montreal to Vancouver, 2,897 miles, before I was introduced to S. R. Poole, who made the preliminary surveys through that part of the wilderness between Cartier and Kenora—a little stretch of 800 miles—and who was engineer of construction on the 256 miles between Markstay and Missanabie.

He acquired the railroad-building habit in such aggravated form that, after the road was completed, he went to Brazil, where he pursued his vocation until surveys were begun for the Grand Trunk Pacific. He then returned to get cooled off once more on the latest of the transcontinental lines in the far North. William Brandreth, now a member of the provincial parliament in British Columbia and a prosperous farmer near Vancouver, was another old-timer discovered riding on a limited train across the wilderness which he helped survey for the C. P. R., beginning away back in 1872.

On the Right-of-Way.

Speaking of this newest of transcontinental lines, it isn't like the good old days any more. When they were trying to find out where to lay the rails of the Canadian Pa-

cific, men were willing to go out into the wilderness for twenty dollars a month and live on a diet of "Chicago chicken," which is a euphemism for pickled pork, when they could get it. But, as provisions had to be brought up in canoes and on men's backs, the surveying parties were forced to live a good part of the time on the anticipations of what they would do to a beefsteak, the next time they caught one alone and unprotected.

On the Grand Trunk Pacific the men got from forty to fifty dollars a month and three meals a day, with oatmeal and condensed milk, bacon and beans, desiccated potatoes, pickles, jam, cheese, lime-juice, corned beef, canned vegetables, fruit, and butter.

Think of it! Butter in the woods! Yet, the men kicked because they couldn't have printed menus and clean napkins at every meal.

The way the men in a surveying-party are pampered nowadays is scandalous. They are furnished with mosquito-proof tents in the summer, and tents with stoves in the winter. The chef has a cook-tent and a portable range. In the good old days only the staff reveled in the luxury of a stove, while the men slept in a wigwam. As for the cook (they didn't have chefs then), he fried the bacon and made the coffee over an open fire, when the rain didn't put it out.

They can take luxuries into the wilderness, but they cannot do away with its perils. Twenty-five men were drowned on the Grand Trunk Pacific surveys. Winter, too, has its terrors. An axman sent on an errand failed to return. After a two-days' search, they found him standing up against a tree, his legs frozen stiff and immovable.

He had fallen into a waterhole, getting wet to the waist, and had gotten his matches damp, so that he could not build a fire to dry himself out. Another man froze his legs to the knee, and, finding no surgeon handy, amputated his own toes with a razor and a pair of scissors. From which it would appear that cold-blooded nerve was not an attribute monopolized by the old-timers.

The Mounted Police.

"Billy" McLeod, now manager of a detective agency at Vancouver, helped make history as high private in the rear rank of the detachment of Royal Northwest Mounted Police assigned to duty on the railroad. He began when the end of the track was at Flat Creek, 200 miles west of Winnipeg. It is pretty well known that the Canadian Pacific was built without any of the disgraceful lawlessness that marked the construction of transcontinental railroads on this side of the border, but it may not be so well known that the mounted police were chiefly responsible for this immunity from trouble.

The mounted police were sent to keep things straight on the road, and they did it by adhering strictly to the one great, fundamental rule on which the force is founded, which is to do things first and consider the fine points of the action afterward, when there is nothing else on hand. If a man hasn't sense enough to know what the right thing to do under any and all circumstances is, he can't get on the force.

War on Fire-Water.

Bad men, and men who would have been bad if they had had the courage, flocked to the Canadian Pacific, just as they did to the American roads: the only difference being that they didn't stay on the Canadian road. The mounted police were always on hand whenever strangers arrived in camp; and if said strangers could not give a satisfactory reason for their presence there, they received such a pressing invitation to leave that they never refused.

The most persistent and determined efforts were made to supply the construction-gangs with whisky. The laws of Manitoba did not prohibit the sale of liquor; but when the Canadian Pacific Railway Company was confronted with the alternative of burdening itself with a drunken construction-force or preventing the men from having all the liquor they wanted, it elected to let them go thirsty. The word was passed to the mounted police to prevent the sale of liquor without too fine splitting of hairs over the law in the case.

And they certainly did it. They boarded all trains; they searched all wagons; and when they found whisky, they poured it out on the thirsty prairie soil. Thousands of gallons of whisky went to stimulate the growth of sunflowers along the railroad. So great was the drought that whisky was quoted at fifty dollars a gallon, with none to be had at any price.

It was not because the whisky-dealers were not ingenious in expedients, for they tried to smuggle in small kegs of the stuff in cases of dry-goods and pianos, in egg-shells, in ox-yokes, and even in bibles. But whisky could not be hidden from the redcoats.

Bootleggers, who, tempted by the hope of enormous profits, ventured into camp with small quantities of whisky concealed on their persons, fared rather badly. They were sure to be caught; and, when they were, they were taken before the commanding officer of the mounted police, who acted as magistrate. They always got the limit, and, to make sure that nothing that was coming to them was overlooked, they were sent to some mounted-police post to serve their sentences. They never tried the game a second time.

WHEN THEY FOUND WHISKY THEY POURED IT ON THE THIRSTY PRAIRIE SOIL.

Delivering the Goods.

One sweltering August day, near Broadview, McLeod, who had been up at the front watching the track-layers handle steel until the sight of so much hard work made him tired, was returning to camp when he met a stranger staggering along under the weight of a satchel that seemed to be particularly heavy. For reasons of his own, McLeod had left his red coat in camp; so the stranger, setting down the grip with a sigh of relief, mopped the perspiration from his face and accosted the policeman.

"Hallo, Bill! Working down there?"

"Yep. I'm not feeling well, so I've knocked off for the day."

"Say! I got something here that'll straighten you out. Wouldn't you like a drink?"

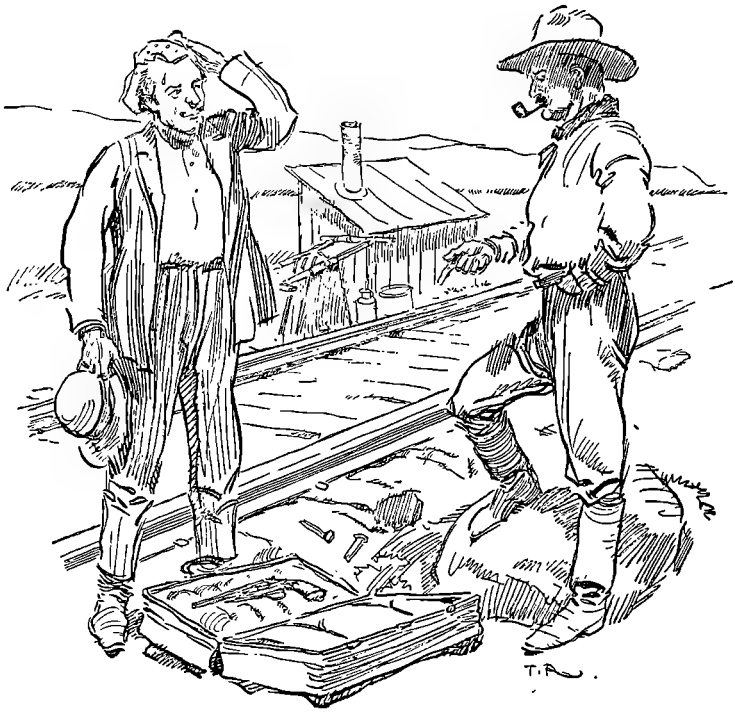
"What ye got?"

"Whisky and brandy. Twenty-five cents a drink."

With these words the stranger opened his grip, which proved to be filled with quart bottles encased in cheap socks to keep them from rattling. On top lay a revolver of the largest size.

"What ye goin' to do with that?" asked McLeod, pointing to the gun.

"I tell you what I'm goin' to do with



"THE FIRST MEDDLIN'-REDCOAT THAT LAYS HANDS ON ME IS GOIN' TO GET A DOSE O' THAT."

that. The first meddlin' redcoat that lays hands on me is goin' to get a dose o' that."

"Um-m-m! Say! What'll ye take for your outfit?"

"Four hundred dollars."

"I'll give you three hundred if you'll throw in the gun."

"It's a go."

"Bring it down to camp, and I'll give you the money," said McLeod, picking up the revolver, which he pretended to examine with great interest. Retaining possession of his new pistol, McLeod led the way back to camp, with the stranger puffing in his wake, carrying the heavy grip. It was more than a mile back to camp, there was not a breath of air stirring, and the sun seemed to be trying to drive the mercury out at the top of the thermometer-tube.

McLeod, simulating great anxiety to get his purchase under cover, almost ran all the way, giving the heavily laden stranger no chance to rest. At last the whisky-pedler dropped the grip, and, turning purple and yellow by turns, managed to gasp:

"Wh-wh-why, you—you're taking me to the police station."

"Sure I am. I forgot to tell you that you are under arrest."

For a time the whisky-pedler was speechless. When he found his voice he could only give utterance to incoherent ravings. But when he got right down to it at last, he relieved himself of a torrent of profanity, winding up by exclaiming:

"I don't mind the arrest, but to make me lug this dray-load of liquor two miles on the double-quick in this awful sun—" and then he became incoherent again. He was fined two hundred dollars; his stock was confiscated, of course; and he was run out of camp.

Ten years later, McLeod met the former whisky-pedler, who, in the accents of one whose grief, while mellowed by time, is none the less poignant, again upbraided his late captor for making him carry that load of whisky to the police station.

Professional gamblers who strayed northward were run out of camp with such enthusiasm that they never ventured into Canada again. A game of poker among the men, however, was overlooked, provided it was kept very quiet, which meant that the stakes must be nominal. When the end of the track had reached Regina, a plan was laid by some of the men who were suspiciously dexterous with cards to inveigle the paymaster into a game of poker and fleece him.

"Pinching" the Paymaster.

McLeod heard of the plot and warned the paymaster. Being a knowing young person, the paymaster volunteered to take care of himself without any assistance from the mounted police. Notwithstanding this offer, McLeod kept his eye on the paymaster.

When he saw him go into a tent that evening in the company of the card-sharps, he waited only long enough to allow time for things to get running smoothly. Then, with a partner, he pushed open the flimsy wooden door of the tent, and fell upon the table so quickly that he had scooped a jack-pot

amounting to four hundred dollars into his pockets before the poker-party realized what was going on.

All hands, including the wise young paymaster, were taken to the station. Colonel Steele, the commandant, was awakened, and, sitting on the edge of his cot in his nightshirt, he tried the case then and there, imposed a fine of fifty dollars on the paymaster, and double that amount on the gamblers. Then he rolled into bed while the police escorted the gamblers out of camp and told them to keep on going.

Breaking Up a Riot.

A riot started by a striking steel gang at Oak Lake was suppressed in the same summary manner. It was in the spring, when work was first begun, and the men, just arrived in camp, had managed to smuggle in enough whisky to start a row.

The nominal cause of the strike, of course, was of no consequence. Sergeant Percy, of the mounted police, was sixty miles away when he was notified of the trouble. With four men he boarded an engine, and hastened to the camp.

The first thing the five redcoats did on reaching the scene of the riot was to get axes and go through the camp smashing everything containing whisky. When this was done to their satisfaction they arrested a few of the ringleaders in the row. Then the sergeant and three men went about their business, leaving a solitary redcoat to keep the drunken camp in order.

He did it, too; for the magic of a red coat in preserving the peace is something that passess the understanding of a free-born American citizen. They are a quiet, unpretentious lot of men who never indulge in any gun-play, nor loud talk. But everybody in the Northwest knows they are crack shots when shooting is called for, and that the maxim that is burned into their brains is that when they are sent to do a thing they must do it or never show themselves again.

So the single policeman was enough to quench the smoldering embers of the riot. Next morning the steel gang, sobered and chastened, returned to work.

SITTING ON THE EDGE OF THE COT IN HIS NIGHTSHIRT, HE TRIED THE CASE.

Another volume of the living history of the Canadian Pacific who is still hale and hearty, tells the story of the road's narrowest escape from trouble of a really serious nature. He is Father Lacombe, a gray-haired Catholic priest, who went into the Northwest as a missionary to the Blackfeet Indians before the building of the road had been decided upon.

Averting a Massacre.

The Canadian Pacific, it will be remembered, was built without any trouble from the Indians. Father Lacombe is the reason why there was peace rather than war. Indians north of the boundary line were just as bloodthirsty, just as quarrelsome, and just as treacherous as their kinsmen south of it. But in Canada, Catholic missionaries had gained a wonderful control over them. The Indians never would attack a camp of another tribe if they knew a "black robe" was there. In all the difficulties between the Indians and the government, the railroad and the settlers, the black robes rendered invaluable assistance.

By the time the construction army had reached Medicine Hat, Chief Crowfoot and his tribe of Blackfeet had made up their minds that they did not want a railroad through their reservation. To make sure that it would not be built, fifteen hundred of them, led by Crowfoot, put on their warpaint, sharpened up their tomahawks and prepared to run down to Medicine Hat and massacre the railroad-builders.

Father Lacombe, hearing what was in the wind, hurried as fast as horseflesh could carry him to the construction camp, and begged the men to stop work for a day or two until he could have a chance to pacify the Indians. The request was received with jests and curses, and with the assurance that they did not propose to stop for Indians nor any one else.

The Black Robe's Advice.

Father Lacombe could deal with red savages if not with white. Ignoring the ribaldry of the men whose lives he was trying to save, he bought two hundred pounds of sugar and as many more of tea, tobacco and flour. Hurrying back to the Blackfoot mission he invited the Indians to a council. He distributed the provisions among the chiefs who were to divide them among their families. Father Lacombe knew well how to talk to Indians, and he spoke their language perfectly. Said he:

"Listen to my words. If one of you can say that, in the fifteen years I have lived among you, I have given you bad advice, let him rise and say so fearlessly."

Not an Indian stirred.

"Well, my friends, I have a bit of advice to give you to-day. Let the white people pass on your lands and build their railroad. They will not rob you of your lands. Moreover, these white men obey their chiefs, and it is with the chiefs that the matter must be settled. I have already told these people that you are not pleased with the way in which the work is pushed on. The governor will come here to arrange with you himself.

"He shall listen to your griefs, he shall propose a remedy, and if the compromise does not suit you it will still be time enough to order the railroad-builders off your reservation."

Crowfoot at once took the floor and declared the advice of the chief of prayer was good, and that it should be followed. That ended the trouble, and the railroad-builders worked on unmolested, never realizing how very near they had come to losing their scalps.

President for an Hour.

Meanwhile Father Lacombe had telegraphed the situation to the authorities and, a few days later, Lieutenant Governor Dewdney arrived as promised by the "Chief of Prayer." In exchange for the tract of land taken for the right of way on the border of the reservation, the Indians were given a strip on the northwest border that fully satisfied them.

The Canadian Pacific Railway Company fully appreciated the value of the service the missionary had rendered. In proof of this Father Lacombe was made president of the road, though perhaps that fact may not appear in the archives of the company.

When the first train ran into Calgary, which was already a flourishing village in anticipation of the coming of the road, it was followed closely by the private car of President George Stephen, now Lord Mount Stephen. He was accompanied by three presidents of American railroads, a number of English lords and a German count. Stephen's first act on reaching Calgary was to send Father Lacombe an invitation to take lunch with him in his car. When the good priest appeared he was unanimously elected president of the company, a position which

CROWFOOT DECLARED THE ADVICE OF THE CHIEF OF PRAYER WAS GOOD.

he filled with satisfaction to all and credit to himself until the meal was over.

A few hours' ride beyond the scene of the massacre that did not take place, there is another spot that makes the history of the C. P. R. still more vivid. It was no longer ago than July 2, 1886, that the first through train into British Columbia stopped at Field, a few miles beyond the continental divide, and left a dining-car on the lonely siding to serve as an eating station until a hotel could be built. Another dining-car was spotted at Glacier.

Pioneer Through Trains.

Sam Woods, who had already had the honor of running the first train into Port Arthur, on Lake Superior, was the conductor. He is now station-master at Vancouver, and to all appearances will be able to take charge of more first trains half a century hence. Robert Marpole, then superintendent in the mountains, is now executive assistant at Vancouver.

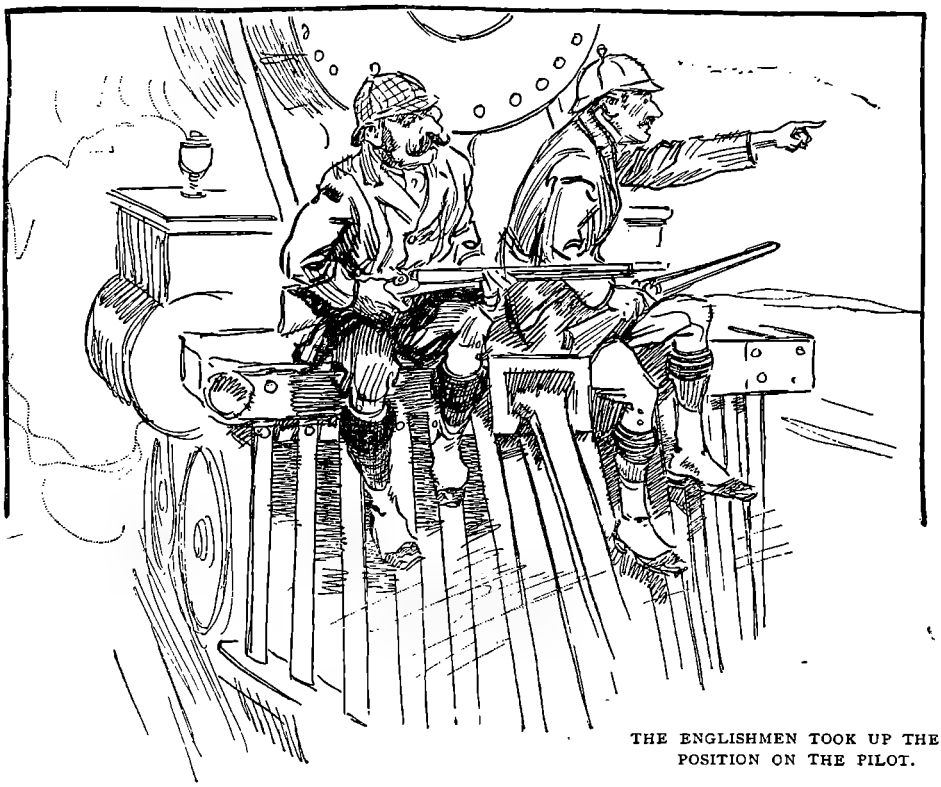
The dining-cars were spotted at Field and Glacier because it was too difficult to haul them over the stiff grades in the Rocky Mountains and the Selkirks. On grades of two and a half to four and a half per cent all kinds of things were liable to happen, and, in fact, generally did happen.

For instance, the snow in the Selkirks has such a disagreeable way of sliding down the mountains in great avalanches, sweeping everything before them, that one of the first things the railroad company had to do after the rails were laid, was to build miles of snow-sheds to protect the tracks.

When the bids were opened the lowest proved to be offered by William Mackenzie and D. D. Mann. Mackenzie was the owner of a little sawmill at Donald, while Mann was a contractor in an equally small way. Neither was overburdened with capital, but the company risked awarding them the contract.

When the snow-sheds were built, Mackenzie and Mann had more money than they had before. Besides, they worked together so well that they have kept it up ever since. They are still making history at the head of the Canadian Northern Railroad, which is spreading through Canada like measles in a boarding-school.

The second train that left the Pacific



THE ENGLISHMEN TOOK UP THEIR POSITION ON THE PILOT.

coast for the East was burned with the exception of the sleeper at Six-Mile Creek on the eastern slope of the Selkirks. A bush fire had set some wood piles alongside the track ablaze. When the train tried to run past the burning wood-piles the rails spread and threw engine and train into the ditch. The sleeper alone was not derailed, so crew and passengers got out and pushed it back out of harm's way.

Conductor Babbitt's Wet Ride.

For a fire that was rather tame. On Monday, May 28, 1888, they did a little better. On that day No. 1 was flagged at snow-shed No. 7, because shed No. 13, near Rogers Pass, just below the summit of the Selkirks, was on fire. A work-train crew in charge of Conductor Babbitt was above shed 13 fighting the fire. They had a flat-car on which were a couple of wooden tanks from which they were nimbly throwing buckets of water on the fire.

About the time the shed, which was of dry pine, was in a fine blaze the coupling broke, leaving that tank-car free to start down the two and a half per cent grade, which it lost no time in doing. All hands but Conductor Babbitt jumped from the car without waiting for formalities as it started to run into the burning shed. Those who had no time to jump just fell off.

Conductor Babbitt stuck to the flying car, and running for the brake threw his soul into an effort to stop the car. If anybody can figure out why Conductor Babbitt wanted to stop the car right in the middle of a blazing snow-shed, they are welcome to the information.

Providentially for him the brake, like all other flat-car brakes since the beginning of time, was out of order, and would not hold an ounce.

A Watery Crash.

The car shot through the shed, gaining speed at every turn of the wheels, so swiftly that Conductor Babbitt came out of the oven very much underdone. In fact, he was only scorched a little. Down the mountain roared the car, with tidal waves sloshing out of the tanks and engulfing him every time they struck a curve, and that part of the road consists exclusively of curves. At every inundation Babbitt would splutter and give the brake-wheel another twist.

He probably would be winding up that impotent brake-wheel yet, if No. 1 had not been standing on the main-line at shed 7. When he saw No. 1 Babbitt concluded he had been heroic enough for one day, so he dropped off.

When the passengers crawled out from under the seats where they had taken refuge without any effort on their own part, and went up ahead to investigate, they found a heap of splinters scattered around the engine which a very wet gentleman said was all that was left of a tank-car on which he had been making a tour of the Selkirks.

The engine had lost pilot, headlight, smoke-stack, sand-box, bell, and other things too numerous to mention, but Engineer Garvin, after they had remembered to dig him out of the débris, cobbled her up, and using a water barrel for a smoke-stack, she contrived to limp down hill to Donald.

But the favorite classic anecdote of the C. P. R., which after all these years is still the *pièce de résistance* wherever old-timers are in gabfest assembled, treats of two English sportsmen, who made the trip east from Vancouver away back in early days.

Of course they had heard of the abundance of big game in the mountains; so when Conductor McCutcheon casually mentioned that the train would pass a bare patch near the base of Ross Peak, they got mixed on orthography. Their ideas of a bear patch apparently was a natural corral filled with grizzlies at which they could take pot shots from the train. This shows that we should not too rashly jump at conclusions.

With a great show of reluctance Engineer Baldy Brown gave permission for the sportsmen to ride on the pilot until they passed the bare patch. Attired in strictly correct hunting costume of the period, including double-ended caps, the Englishmen took up their position on the pilot with their elephant guns at full cock lying across their knees and their eyes fairly popping out of their heads as they scanned each foot of ground for the bear patch, or, rather, the bare patch.

Just before they reached this interesting spot the train entered a tunnel, which in those days leaked abominably at a place near the center. When the pilot was directly beneath the worst of the downpour, the engine came to a standstill.

As they were in inky darkness the sportsmen had to sit there for twenty minutes, with miniature Niagaras running down the backs of their necks, listening to Baldy Brown abusing the fireman for letting the steam run down so low.

Not until they were well on their way to London did they recall that they could hear Baldy Brown's vituperation only half the time, because the roaring of the safety valve drowned his voice the other half of the time.

Those who venture to doubt this story are shown the identical bare patch that Conductor McCutcheon mentioned to the English sportsmen and the tunnel in which Baldy Brown's engine died that day.

PRESERVING RAILROAD TIES.

Growth of the Practise of Treating Timber with a View to Prolonging its Life in Road-Beds.

THE rapid progress of wood preservation in the United States during recent years is disclosed in the rapidly increasing percentages of treated ties in the total annual purchases. In 1908, 23,776,060 ties were reported by the steam and electric roads as having been treated by them or purchased already treated, which was 21.1 per cent of all of the ties purchased in that year. The corresponding percentages in 1907 and in 1906 were 12.9 and 11.5, respectively.

Twelve large railroad companies are now running treating plants of their own, and a number of roads which do not maintain such plants either buy treated ties or have their ties treated after purchase.

Altogether, there were in operation in the United States in the year 1908 about seventy wood-preserving plants.

In 1908 the steam roads treated 12,590,643 ties and purchased 10,565,925 treated ties, the total for these roads being 23,156,568 treated ties, or 21.8 per cent of the total number of ties purchased by them, and 97.4 per cent of the treated ties reported for that year. The use of treated ties is less general among the electric than among the steam roads. The electric roads treated after purchase 212,356 ties, and purchased in treated form 407,136 ties, making a total of 619,492 treated ties, or 9.6 per cent of the total number purchased by them.—*From Bulletin No.* 109 *on Forest Products of the United States for* 1908, *issued by the Department of Commerce and Labor.*

THE GOAT DEGREE.

BY AUGUSTUS WITTFELD.

Carlock Bjones Follows a False Clue, and Finds That He Has Been Initiated into an Ancient Order.

I ENTERED Carlock's apartments and found him swinging in a hammock. He gave me a quick glance and heaved a deep sigh.

"Why so melancholy?" I inquired.

"My dear Watchem," he answered, "I had hopes that your afternoon would be at my disposal, but, of course, since you are going to the ball-game with Emmons, I cannot look for you to assist me in the mysterious case of O. B. C. Osofat."

"Who told you I am going to the ball-game?" I asked.

"Why, Watchem," he answered, "the truth is self-evident. You are wearing your somber garments on a week-day. You can have put them on only for the purpose of lending color to the yarn you told your chief that your grandmother is to be buried this afternoon.

"As she has died at least a dozen times to my knowledge, I can deduce but one thing, and that is that the interment will be at the usual place."

"Carlock," I commented, "you are right. But what gets me is that you know I am going with Emmons."

"Easiest thing out," replied Carlock. "Emmons came in and tried to borrow a dollar from me. Said he was going to the ball-game. Ergo, he must be going with you or he wouldn't have to borrow the money."

"Carlock," I said in amazement, "you're a wonder. But tell me, why are you swinging in a hammock?"

"Because I enjoy the suspense," he replied. "Suspense stimulates the mental faculties, and, besides, a hammock affords free sway to the imagination."

"Have you discovered any clue to the mysterious disappearance of the case of Fat-Reducio which was consigned to O. B. C. Osofat, and which was lost while in transit on the Pole-to-Pole Railway?" I asked.

"Before answering your query," replied Carlock, "I wish to refresh your memory on the subject. You remember it was while I was engaged on the famous case of the Gold Coupler that O. B. C. Osofat came to me with the astounding information that a case of Fat-Reducio had disappeared in transit on the Pole-to-Pole Railway.

"Mr. Osofat had ordered the preparation with the idea of reducing his excessive weight, and, in anticipation of the results which had been guaranteed by the manufacturers, he had donated most of his clothing to the home for obese octogenarians, and had ordered a liberal supply of new ones to fit a man weighing a hundred pounds less, or one hundred and seventy-six pounds.

"The preparation had been consigned to him by the manufacturers at Phantasmania, and was receipted for in good order by the Pole-to-Pole at Patrickgonia. Somewhere between that point and this city it disappeared completely. The resources of the road have been exhausted, and as a last resort my marvelous powers have been enlisted in an effort to solve the mystery.

"Mr. Osofat is one of the largest stockholders of the road, and, consequently, the directors are especially anxious to please him, as they realize that heavy stockholders are not to be made light of."

Carlock paused, and, opening his medicine-chest, he handed me a pepsin tablet.

"What is this for?" I asked.

"Take it," he replied. "It will help you to digest the evidence."

I did as he directed, and he continued.

"When I took hold of the case there was absolutely nothing to work on. After infinite pains I discovered that the baggage-car of the train that received the case at

Patrickgonia was in charge of Pud Judson, one of the heavy-weight baggage-smashers of the road. I looked up his antecedents and found that he had lots of first-class records, which he used on his phonograph. He was credited with being as straight as a string, but considerably thicker.

"I also discovered that, after reaching New York on that trip, Pud had disappeared and was missing for four weeks. When he finally reported for duty he had grown considerably thinner. The cause of his falling-off in weight has never been explained."

"Has any one asked him the cause?" I asked.

"Watchem," said Carlock reprovingly, "will you never learn that it is very unethical to ask a suspect to explain anything? The proper course is to secure evidence, or, failing in this, to resort to the expedient of manufacturing evidence to fit the case. When you have succeeded in building up a plausible theory, confront your victim with it, and, by judicious work, win from him a confession."

"As the case now stands," I remarked, "what do you make of it?"

"By logical deduction, I arrive at the conclusion that Pud Judson is responsible for the disappearance of the case of Fat-Reducio, and I propose to fasten the crime on him."

"But, Carlock," I interrupted, "I was not aware that any crime had been committed."

"Is it not a crime to deprive a man of hope?" asked Carlock. "Is it not a crime to rob a man of the anticipated loss of one hundred pounds of surplus flesh, and condemn him to carry it through life?"

I had to admit that it was.

"I have summoned Judson," continued Carlock, "to report here at three-thirty today, and if you want to see something that has baseball fanning the air, I would advise you to remain."

"Well," I replied, "since Emmons failed to get the money, I guess I'll have to take your advice."

Precisely at three-thirty, the indicator on the wall announced that Pud Judson had entered the building, and was even then on his way to Carlock's apartments. In a minute or so the elevator stopped, and then there was a knock at the door. Carlock opened it, admitting a short, emaciated man in a railroad man's uniform.

"You sent for me?" he asked, addressing the great detective.

"I *summoned* you," said Carlock. "Be good enough to note the distinction. A professional man never *sends* for any one."

Carlock surveyed Judson critically, having taken a post-graduate course in surveying at a correspondence-school. Suddenly he made the startling accusation:

"Judson, you are short!"

Judson cowed.

"Only a matter of fifty shares or so," he asserted.

"I do not refer to your petty market speculations," said Carlock severely. "I refer to your weight. You have lost about a hundred pounds. Had you lost this weight in a legitimate manner it would not have been necessary for me to summon you, but since you have usurped the loss which should have been another's, it is my duty to secure from you a statement of the facts."

"I do not know what you mean," asserted Judson.

"You know that on your last run there was a case of Fat-Reducio consigned to O. B. C. Osofat of this city. You also know that when you reached here the case had disappeared."

"But why accuse me of knowing what became of it? If the case was lost, I do not see how I am to blame for it," protested Judson.

"When you received that case at Patrickgonia," said Carlock, "you were known as Pud Judson. No one could accuse you of being entitled to that name now. To what can we attribute your loss of flesh, if not to the fact that you have taken something to bring about this result?"

"I tell you I know nothing about it," protested Judson. "When I arrived at New York, on that run, I was a very sick man. My complaint was one that baffled the skill of the physicians, and left me as you see me now."

"Judson," said Carlock, "do you mean to say that you did not eat the case of Fat-Reducio for the purpose of reducing your weight?"

"I tell you I know nothing about it," insisted Judson.

"Judson," said Carlock, "a crime has been committed, and it is necessary that the criminal be found. You were in that car alone with the case of Fat-Reducio. You are known to have often expressed dissatisfaction with your excessive weight.

"During the long run from Patrickgonia to New York you pondered on this fact, and cast envious eyes at the case which was intended to reduce the weight of O. B. C. Osofat. You envied him the good fortune which made it possible for him to indulge in the luxury of a case of Fat-Reducio.

"In the solitude of your car, you suc-

cumbed to the temptation, and when no eye was on you, you ate up that case. Come, man, you may as well admit it. I know what I am talking about."

"I did not eat it," said Judson. "I was not in the car alone. There was a goat on board. It was consigned to a cattle-show in Kentucky. I tell you I know nothing about it."

"Watchem," said Carlock, turning to me, "this is the toughest case I've ever tackled. I've got to get an admission out of him at any cost. The directors have ordered me to make a report as quickly as possible."

He turned, and, opening his safe, he took a handful of gold-pieces from his cash-box. Placing the gold on the table, he addressed Judson:

"Did you ever see this before?"

"No," replied Judson.

"It is yours," insinuated Carlock.

"No, no," moaned Judson. "I wish it was."

"It is yours," repeated Carlock. "Come, now, like a good fellow, admit that you ate the Fat-Reducio."

"I do not understand," wailed Judson. "But if you say the money is mine, perhaps I am mistaken. Perhaps I did eat the Fat-Reducio."

"The money is yours," Carlock assured him. "Come, now, admit that you ate the case of Fat-Reducio."

"Mine—all mine!" exclaimed Judson joyfully. "Yes, I think I did eat it."

He picked up the gold-pieces and let them flow from one hand to the other. Then he put them into his pocket.

"You did it," persisted Carlock. "You know you did it."

"Yes; I did it," said Judson wearily.

"Whew!" exclaimed Carlock. "That was a tough job. Twenty minutes, by the clock. Did you phonograph it, Watchem?"

"Yes," I replied; "it is all on record."

Carlock dismissed Judson, and proceeded to transcribe a full report of the confession. He was a lightning operator on the typewriter, and I watched the sparks flying from the machine as he wrote.

"Are you not afraid of setting fire to the paper?" I asked.

"No danger," he replied. "I use asbestos safety-paper."

As he finished his labors, the postman entered and handed him a large, legal-looking letter.

Carlock passed it to me and asked me to read it to him.

I broke the seal and opened it. Clearing my throat, I read:

HOOF, HORN & HIDE,
GOAT BREEDERS,
VENEZUELA, S. A.

MR. CARLOCK BJONES, NEW YORK, U. S. A.:

DEAR MR. BJONES—We are addressing you as the head of the detective staff of the Pole-to-Pole Railway, and beg to report to you that some time since, we shipped one of our prize fat goats over your road to the Kentucky Agricultural Fair. The goat was a beautiful specimen, weighing two hundred and twenty pounds. Shortly after its delivery to the Agricultural show people, it commenced to lose weight, and in the short space of one week it lost the amazing sum of one hundred pounds. It is needless to note that the goat was unfit for show purposes, and we were compelled to withdraw it.

We determined to investigate the cause of this loss in weight, and our Mr. Arsenic Loo Ping was assigned to the job. With the greatest ease he located the man who had charge of the baggage-car in which the goat had made the trip to Kentucky.

He found him in New York suffering from a mysterious malady, and, disguising himself as a trained nurse, he gained admission into the sick-room. He was rewarded by learning from the delirious ravings of Pud Judson that a case of Fat-Reducio in the car had been entirely consumed by our prize fat goat.

We propose to enter suit against the Pole-to-Pole Railway for damages sustained by us through your carelessness in transporting our goat.

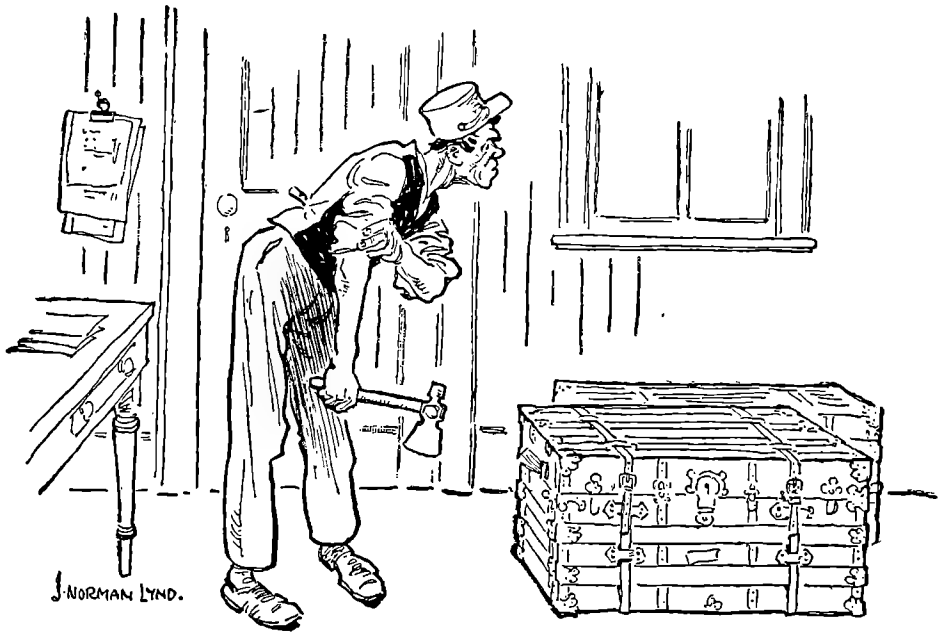
Mr. Arsenic Loo Ping sends you his greetings, and assures you that you will have to get up early to beat him.

Very sincerely,
HOOF, HORN & HIDE.

"Carlock," I commented, "it looks to me as though Pud Judson has the best of you. There seem to be two goats in this case."

"No," replied Carlock bitterly. "There is only one. I'm it."

A broken side-rod has more liberty than sense. Restraint is the secret of usefulness.—Cautions of the M. M.



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 28.—The Railroad Detective, as Represented by Pat Flynn, who Unearthed a Hideous Crime in a Couple of Trunks From Chicago.

THE wise and observing, whom we have with us always, tell us that if one would live a hundred years, he must have a fad of some kind outside the routine of his daily occupation.

Pat Flynn, who aspired to a hundred years, decided, as an incidental feature of his existence—and supplementary to his job in the livery-stable and off-bearing in the sawmill—that he would be a detective.

Pat did not want to be a common country constable, handling summonses and serving notices, and trying to stop city automobiles that streaked through Pippenville at a hundred Barney Oldfields an hour.

He wanted tragic enigmas to go deep into, unravel, and apprehend. He wanted to "Hist!" and "Aha!"

When the railroad found Pat, he was night-watchman, or, to put it with more dignity, merchant police in the town of Pippenville at a salary of seven dollars a week, paid by the voluntary subscription of the bank, the hardware merchant, the general store, the lumber-dealer, and others.

His duties were to go up and down the main street in the grave-yawning hours, with an occasional sly sortie in the next alley back, and see that neither vandal nor buccaneer disturbed the peace or property of the village.

Series began in the July, 1907, Railroad Man's Magazine. Single copies, 10 cents.

For the police surveillance, Pat fully equipped himself by sending five dollars to a detective bureau at Cincinnati, Ohio, and received, by return mail, a pewter badge and credential papers, with flamboyant seal, notifying all concerned that the "aforesaid Patrick Flynn was appointed, duly qualified, and fully authorized to detect anything, anywhere, whatsoever, or whomsoever."

Thereupon he detected a new job, paying forty dollars per month — baggage-master at the depot.

Pat made out his application for the place in a stout, round hand, and indicated a sturdy ancestry back to Ballyhooly, Cork County, Ireland.

Now, being station baggage-master at a way station is not altogether what one would term a "flossy" job.

All the 250-pound sample trunks weigh 265 pounds, and every month your "anxious-to-please" Uncle Samuel adds another mail-sack. Besides, there are records to keep and janitor work to do.

The forty dollars allured Pat, but his heart was not in the work.

His natural bent was for police duty. Had he not already paid his five dollars and qualified as a detective?

Again, "Hist!" and "Aha!"

But Pippenville was no field for Sherlocking. There were not people enough, and there was no crime. One cannot run down and apprehend when there is nothing but the idle persiflage of old women's tongues.

Pat went to the railroad to broaden his opportunities.

Railroads need the keen, penetrating vision of the trained detective. There are mystery cases on the railroad every day, and Pat saw his opportunity.

When the company learned he was a detective, with papers indicating it, substantiating it, and notifying all concerned that he had the authority and cooperation of the National Detective Association of Porkopolis, to run down whatever was dark and dank, he would not long remain in Pippenville as baggage-master. They would call for him for secret-service duty.

That was why Pat went after the job as station baggage-master.

The branch line from the prairie connects with the trunk line for Chicago at Pippenville. A great deal of baggage and mail is transferred between the two.

Pat adjusted to his duties quickly enough.

Then he began snooping about for crime, double-dealing, and mystery.

It came quickly enough.

One day Pat unloaded two truck-loads of baggage off the branch. On one of the trucks were four shoe-trunks, all alike.

Pat checked his baggage with the train-baggageman's way-bill. Every check number corresponded, and the pieces tallied. He signed up for all of it, mailed his receipt for it, and loaded up the greater part of the baggage on the Chicago train.

The shoe-trunks, with some other pieces, were checked to Pippenville. These he allowed to remain on the truck at the west end of the depot.

Within an hour the drayman came after the shoe-cases, and gave Pat four duplicates.

When Pat went out to deliver them he found but two trunks. But a strap-check hung on each end of each trunk to match the four duplicates. He found four checks dangling on two pieces of baggage.

Pat had a hazy recollection of there being four of them when he unloaded them, and he was certain he did not load two of them on the Chicago train. Nevertheless, he arrived at the swift conclusion that there had been but two in the first place. Detectives think quickly. He removed the four checks, and delivered the two trunks to the drayman.

This brought the shoe-man to the depot in a hurry.

"I'm short two of my trunks, brother," he insisted, "and I need them right this minute."

"You ain't short nothing," answered Pat. "Them two trunks was checked twice, and that's four. Four checks and only two trunks. See?"

"Ain't short anything!" yelled the shoe-man. "Don't I know how many trunks I carry? Didn't I check four at Holton? Didn't I see the agent load 'em? Didn't I see 'em unloaded on your truck? Didn't I count 'em, 'One, two, three, four,' before I went up-town?

"Now, you've delivered two of them to some one else, or you have loaded them out for Chicago. Get busy, brother; get busy. I want 'em. I want 'em bad! I want 'em this minute."

"You ain't got but two trunks," persisted Pat doggedly. Detectives must be firm as well as nimble-witted. "But they's checked twice. A check on each end. Four checks on two trunks. See?"

"Have you delivered any trunks to any one else?"

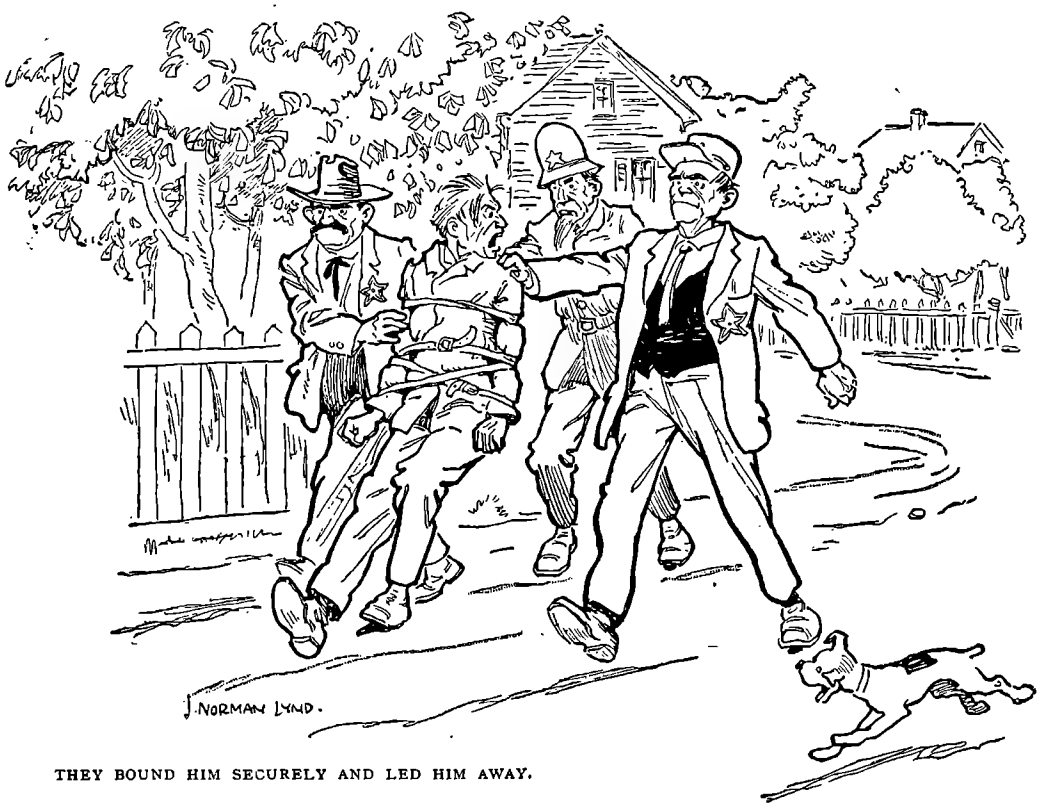
"No, sir."

"Then you put them on the train for Chicago!"

"I did not!" responded Pat firmly. "I did not load any shoe-trunks on the train for Chicago. You had them trunks checked twice. That's four. One check on each end. That's four. Two trunks—four checks! Ain't that plain enough?"

The shoe-man made threatening gestures under Pat's nose.

"No use to talk to you!" he howled. "You're a muckle-head. You don't know anything. I'll go after the officials by telegraph. I'll get them, and they'll get you!"



THEY BOUND HIM SECURELY AND LED HIM AWAY.

This line of talk ruffled Pat, and brought out a hot retort. When a man has ancestral tracing to Ballyhooly, Cork County, Ireland, and detective credentials besides, he's bound to come back.

"Look here!" said Pat. "Don't make motions around me! You don't know who you're talking to. Look here!"

Pat displayed a glimpse of the pewter badge.

"See this paper! Membership, National Detective Association! I see through this case. You got 'em checked twice—on both ends—see? Then you come here and claim four trunks. It's a slick scheme to beat the company. You're a swindler! But Pat Flynn—"

Pat did not get any further. He was about to say that Pat Flynn had solved the mystery and exposed the plot, but the Fourth of July came so suddenly, and they touched off the fireworks all at once, and the pin-wheel went buzzing around at such a rate, that Pat did not complete his deductions. When he came to, the brutal shoe-man had gone uptown.

Pat had taken the count.

The controversy and investigation raged with vigor for many days.

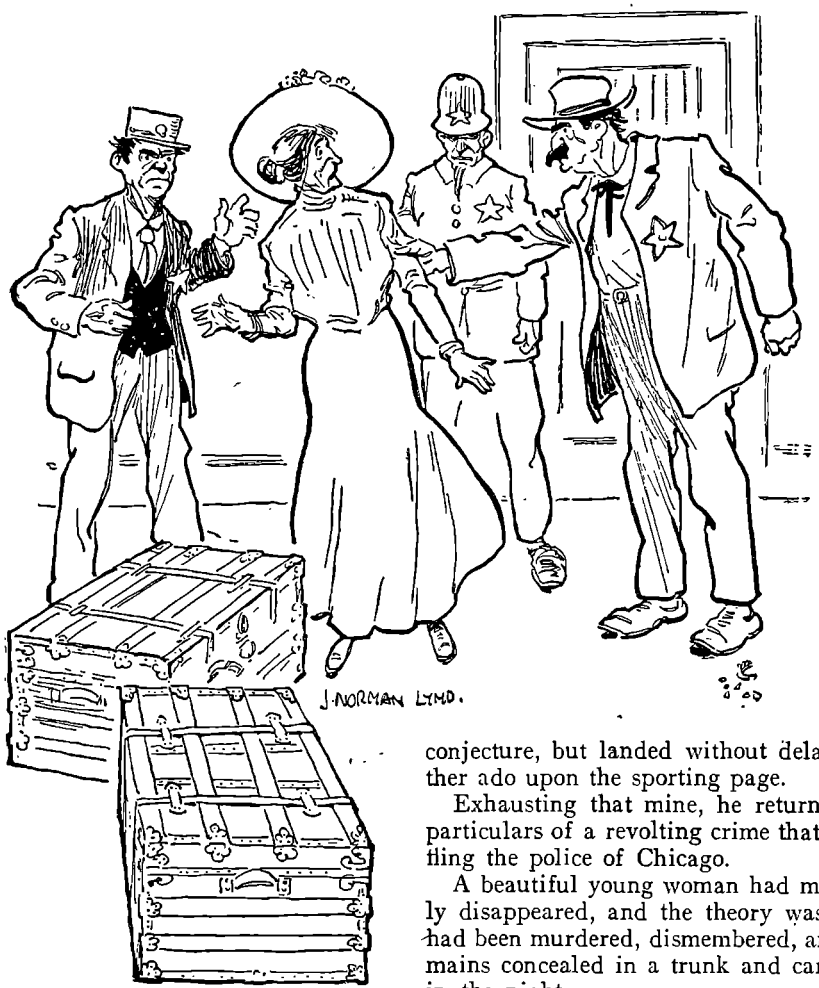
Pat was firm and loud in his theory of four checks and two trunks, and he backed it by the signed credentials of the National Detective Association, and by the weight of his pewter badge.

The mystery was not solved. The shoe-man made good his claim. The company could not find the trunks, and finally paid for them.

Pat Flynn expostulated and protested, but was overruled and censured. He had to

stand aside, mute and helpless, while the company "came across" with the wherewithal.

Pretty tough, isn't it, when one has full detective power, and has solved the mystery, and then have all concerned coolly turn down the expert deciphering?



THIS DELICATE JOB WAS PERFORMED WITH ALL THE GENTILITY CONSISTENT WITH SAFETY.

Pat was somewhat humiliated and discouraged, but it was not long before opportunity again gently tapped at the baggage-room door, and Pat promptly answered the call.

This time it was big game—same as rhinos in Africa.

A desperate criminal had successfully eluded the police of Chicago.

Pat lit his pipe one day, and sat down on a brass-trimmed, double-strapped trunk, which he had just unloaded from the Chicago train and trucked into the baggage-room.

Then he opened the *Daily Howl*, and scanned the three-inch head-lines with eager interest. He gave a hasty glance at the political doings, none at all at the editorial conjecture, but landed without delay or further ado upon the sporting page.

Exhausting that mine, he returned to the particulars of a revolting crime that was baffling the police of Chicago.

A beautiful young woman had mysteriously disappeared, and the theory was that she had been murdered, dismembered, and the remains concealed in a trunk and carted away in the night.

"Baldy" Brewer was suspected and wanted by the police.

The trunk was described as brown, brass-trimmed, and double-strapped.

Pat jumped three feet straight up and landed in the middle of the baggage-room, while gooseflesh sensations played up and down his spine.

The paper fell from his hand. He was sitting on it—the brass-trimmed, double-strapped, brown trunk, just from Chicago.

There it was, no doubt about it!

Pat's system was surcharged with suspicion. He went outside and leaned heavily

against the depot, fanned himself with his cap, and gathered his thoughts.

"There's a reward for 'Baldy' Brewer, all right," he mused. "Here's where Pat Flynn gets his picture in the papers, and a wad of money too, and makes his reputation."

In another moment a train came in on the branch line, and Pat unloaded another trunk. He trucked it into the baggage-room and dumped it beside the other. Then he stared in astonishment. They were exact duplicates. Each brass-trimmed, double-strapped, and brown!

"That's only a happen-so," Pat soliloquized. "It has no bearing on the case."

Again he read the particulars in the Chicago papers, and corroborated every detail of the description of the trunk.

The hackmen and passengers departed. No one claimed the baggage. Pat was alone.

He turned the trunks over, but there were no telltale marks. Then he speculated on the crime.

No doubt the trunks would be called for. What would he do? What assurance had he that one of them was "Baldy" Brewer's and contained a corpse? None at all. It might be, however. There was a possibility.

Pat reached behind the counter and brought forth a hatchet.

There was a reward, of course—a big reward for information leading to the capture of "Baldy" Brewer.

It was Pat's duty as a detective to investigate, to prowl and pry and prod wherever there was suspicion.

Would faint-hearted indifference lead him to let this opportunity slip from his grasp?

Pat brandished the hatchet in answer, and locked the door to prevent interruption. Then he forced the lock and hurriedly unbuckled the straps.

He raised the lid cautiously, gave a quick peep, and dropped it with the suddenness of an electric shock.

He staggered to the door, flung it open, and again leaned against the baggage-room, pale and excited.

He had caught the glimpse of the top of a woman's head—a scalp covered with fine, wavy brown hair!

His heart beat hard and fast. He struggled for breath. Not for some minutes did he venture inside to restrap the trunk and tap the lock to its proper place.

Then he straightened up with a start to the discovery that he had opened the wrong trunk—the one that had come in on the branch line, instead of the one from Chicago.

The discovery confused him, and led him to the wildest speculations.

Was there a corpse in each trunk? Had "Baldy" Brewer committed a double crime?

Pat was emboldened to further investigation. He looked into the other trunk, and forthwith slammed the lid down in great haste and hurriedly buckled the straps.

The glance revealed the calf of a leg, flesh-tinted and well-rounded.

He rushed to the telegraph-office and sent this message:

CHIEF OF POLICE, CHICAGO:

What reward for the capture of "Baldy" Brewer and for recovery of body of his victim?

PATRICK FLYNN.

In due time this answer came back:

PATRICK FLYNN:

Two hundred dollars for information leading to "Baldy" Brewer's arrest.

CHIEF OF POLICE.

Pat sought the town marshal.

"I reckon," said Pat diplomatically, "if you was called on to help me arrest a professional criminal, you'd show the white feather."

"Would I?" retorted the marshal with scorn. "I'd like to have the chanct."

"You'll get it, all right," said Pat eagerly. "This very afternoon, down at the depot, an' he's a bad actor. You'll duck, though; I'll bet you ten dollars on that. You ain't got the nerve."

In rebuttal to this insinuating taunt, the marshal threw out his chest and displayed the butt of a bulldog revolver. All of which indicated that he was the man for desperate undertakings.

"What is it, Pat?" he asked with cautious whisper.

Pat drew him aside.

"A store was robbed at Salem last night, and the plunder is at the depot in two trunks," said Pat with easy invention. "When the thief calls for 'em, you nab him—see? Don't let him run any bluff on you, and don't give him any chanct to get the drop on you. He's bad—do you mind? I'll file a affidavit against him. All you got to do is to hold him till they come after him. They's ten dollars in it for you."

"I'd better get Constable Cherry, hadn't

I?" asked the marshal in a tone of wise precaution.

"Three of us ought to handle him, all right," returned Pat.

The officer made off in gum-booted wariness to marshal his aid, and Pat returned to the station, congratulating himself that the secret was safe, and the others engaged in the legal undertaking of apprehending "Baldy" Brewer were ignorant of the real crime and the character of the criminal.

When the formidable battalion of police, in jerkies, homespun, and one lone tin star, was arrayed in military attention in the baggage-room, awaiting with some palpitation the arrival of "Baldy" Brewer, Pat addressed it:

"Whin you nab 'im, hold right on to 'im. Don't pay any attention to w'at he says. These trunks ain't to be opened till the officers comes. No matter w'at he says are in 'em. Ain't any guesswork what's in 'em. I know! See?"

After a breathless hour and a series of apprehensive "Hists!" portending the culmination of the enterprise, the police force, from its various corners of vantage, heard the approach of Pat's footsteps and the ring of his voice:

"Come right along in the baggage-room with me. Your trunk's inside. We want to get the right one, you know. Don't want any mistake."

The door opened. Pat stepped aside, and the unsuspecting culprit walked directly into the trap. Or, rather, he used a cane and came with a shambling limp—a sort of squeaky protest from the ankle.

The minions of the law pounced upon him. It was an unexpected onslaught. He got in one random blow with his cane by way of resistance, and landed with a resounding whack on Pat Flynn's pate.

But they bound him securely and led him away, fighting, protesting, and profaning like a demon.

As the lock was broken on the village calaboose, they confined him in a room at the inn under a heavy guard of village constabulary.

Soon a fleet-footed messenger came from Pat Flynn summoning the marshal again to the station in great haste. A female accomplice had appeared upon the scene and was claiming the other trunk.

They took her in custody. This delicate job was performed with all the gentility consistent with safety.

"You are under arrest," blurted the marshal, seizing her by the arm.

"Help!" she shrieked, and fell over in a faint.

She shrieked explosively, for her false teeth fell out, and the awkward official, struggling for his balance, stepped on them.

She came to in the parlor of the inn. She was hysterical and belligerent by turns.

The officer sought to pacify her by assuring her that by evening officers would be there, and if she was not implicated in any way she would be liberated, and that she was only held on suspicion for a short time.

"Where are my teeth?" she shrieked wildly. "You puppy! You imp! You'll thuffer for thith outrage, you contemptible thug—you brute—where are they, I thay?"

"It was an accident, mum. I stepped on 'em. You let 'em fall out."

A heartrending wail went up.

The marshal blinked in confusion and backed out toward the door. He would have flown, but the stern duty of the law bade him remain. The woman pounced upon him in a paroxysm of rage, and slapped his face with a ringing smack. Then she sank into a chair and wailed hysterically.

The burden of her lamentation was her teeth. Twelve pearly teeth—the ivory ensemble that artistically robbed the face of ten or fifteen years—were gone, and there was no consolation.

But her emotion had degrees, and soon she was sobbing more rationally.

In the meantime the marshal, with the instincts of a sleuth, had secreted a sharp-eared constable behind a piece of furniture. The alleged "Baldy" Brewer was brought down into the parlor, and the two arrested partners in crime were left alone, with numerous guards and sentries at every possible exit on the outside.

The secreted deputy listened with open mouth, inhaling vast quantities of subterranean lint and almost rupturing his tympanum in the effort to catch incriminating confidences passing between the pair.

For a time no words were spoken. Presently the man asked:

"Are you the landlady?"

"Thir?"

"Are you the landlady?"

"No, thir!"

"Don't you belong here?"

"No, thir. They have arrethted me and brought me here. Oh, dear! I don't know why. It'th such a dithgrace!"

"The deuce they have! They've pinched me, too. I h'ain't got any idea why Where did they get you?"

"At the depot, thir. I wath calling for my trunk, and they arrethted me and brought me here, and they're going to hold me here, till thombody comes. I don't know who."

"That's what that hickory-shirted chief of police told me. They was goin' to hold me till the sheriff comes from Salem!"

"I'll make thombody thweat for thith," said the woman. "They ruined my teeth!"

"What!" exclaimed the man, "smacked you in the mouth with a mace? Where was your hat-pin, woman?"

"I wath tho overcome by thurprith, thir—the teeth fell out. He thepped on them and they huthled me right out, and didn't give me a chance to exthplain. But I thertainly gave him a piece of my mind a while ago. I thure did!"

This pleasant reminder brightened both a little.

"I hope you did, mum," said the man. "You look like you could tell them a few things all right. I handed 'em some pretty hot ones myself."

"Theyth not done with me yet, I athure you," she lisped loftily.

"Nor me, either."

Another pause.

"Are you acquainted here, mum?"

"No thir, I don't know a thoul."

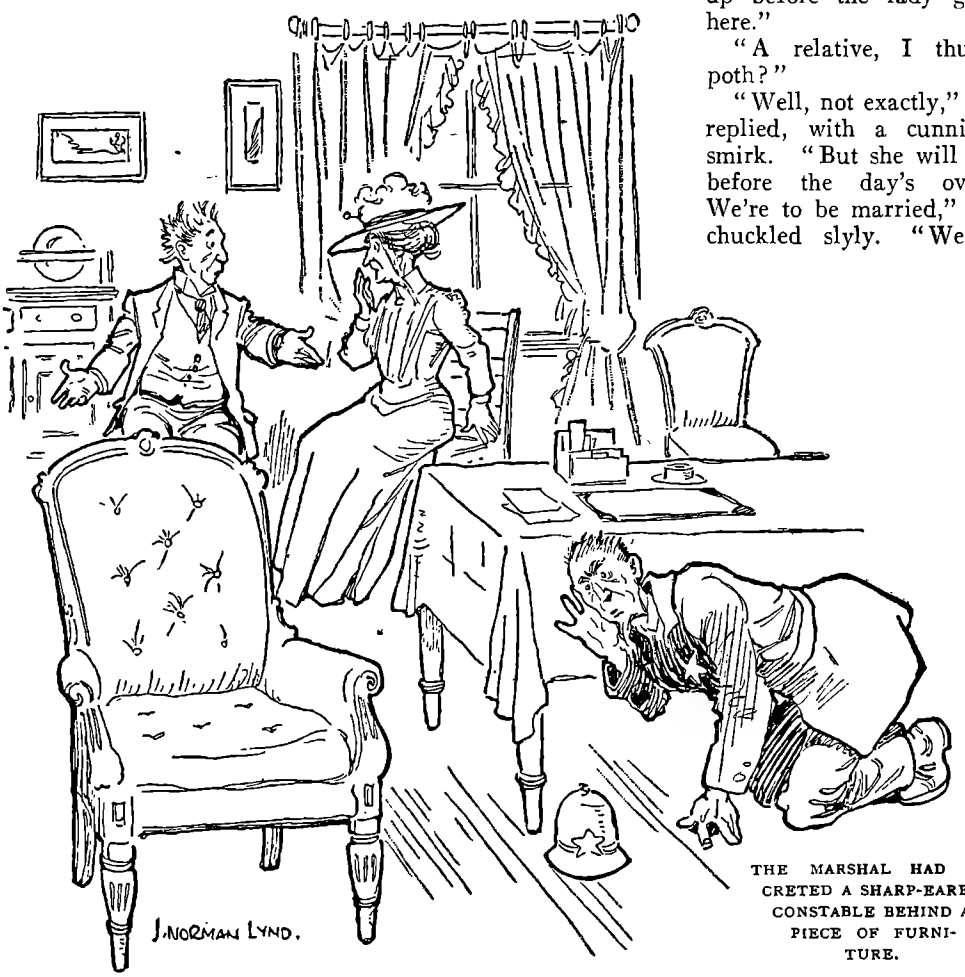
"Neither do I. Suppose you were just changin' cars, goin' somewhere?"

"Why, yeth; or really, no. I—I— am to meet a gentleman here thith evening on a matter of great importanth to both of uth."

"That's a funny happen-so. That's just my case exactly. There's a lady comin' in on the branch road this evening, and I'm to meet her on a matter of great importance to both of us. We seem to be in the same boat. An' we're both under arrest. But there's a officer comin', in an hour or so, an' as they h'ain't got anything agin me I expect to be released. That'll give me a little time to rig up before the lady gets here."

"A relative, I thuppoth?"

"Well, not exactly," he replied, with a cunning smirk. "But she will be before the day's over. We're to be married," he chuckled slyly. "We've



THE MARSHAL HAD SECRETED A SHARP-EARED CONSTABLE BEHIND A PIECE OF FURNITURE.

never seen each other, but we've wrote each other for a long spell."

"Indeed! Indeed! How romantic! Tell me about her—pleath do!"

"She's rich and she's beautiful, too. Somehow, I just naturally picked her out when I read her ad in the *Matrimonial Bulletin.* I ain't got nothin' agin a woman just cause she's got money. But every man likes 'em purty. An' a purty woman with money ain't to be run acrost every day.

"She writes a mighty good letter, an' so do I, an' it didn't take us long to find out we was made for each other. I just kind a felt she was my divinity, as they say."

"How do you know the's tho rich?"

"She don't say so right out. But she hints at it purty often. She don't want her property to have anything to do with our affairs. She wants to be loved for herself alone."

"A lady about my age, I prethume."

"Oh, no," he came back briskly. "She's about twenty years younger than you are. She's somewhere between thirty-five and forty."

The woman came upright with a jerk.

"Thir, I don't thank you for thoth inthinuations!" she retorted. Then she put her handkerchief to her eyes and sobbed with ladylike softness. She audibly lamented the loss of her teeth.

After an assuaging silence, the man spoke up brave and conciliatory.

"Teeth do make a difference in any one's appearance, that's a fact. If I was you an' was goin' to meet some one and cared for my appearance, do you know what I'd do?"

"What would you do?" she asked eagerly.

"Just as quick as they let me out, I'd go and see a dentist. Maybe he's got a second-hand set you could use an' that you could rent cheap."

The woman started.

"The idea, thir!" she exclaimed.

The man, seeing the need of propitiating words, went on breezily:

"Of course, we all need some fixin' up to make us just right. Now, take me. You'd think I was about the article. But I don't mind tellin' you I got one leg off. Maybe you noticed my ankle squeak when I step. It's artificial, that's why. I got another that fits better, an' I don't even limp with it, but I only wear it when I dress up."

"Doth the lady know that you have but one—l-l-limb?"

"Sure not. I never told her. That's a personal matter. Only concerns me, you know. Same as bein' bald; an' I'm that, too—maybe you noticed. People can't help them things. I argue they're personal—entirely personal, an' don't concern any one else. Take yourself, for instance. Your hair's purty scant. That's your own lookout. See?"

The woman involuntarily put her hand to the knot of thin hair on the back of her head.

"Have you ever been married before?" she asked.

"I'll tell you true. You seem to be interested. I've been married two times. I got six children, an' the oldest one's thirteen. I argue that's personal, too. Don't concern anybody but me."

"And you never told the lady?"

"It's a personal matter, mum. I didn't mention it, of course not. If she's a good woman, she'll be glad to take care of 'em. If she ain't a good woman, I don't lose anything, do I? I don't ask her about her personal matters. We just took each other, an' that's enough."

"I dare thay the lady will thertainly be thurprithed."

"Maybe she will, and maybe she won't."

"What if you find she isn't pretty and hasn't any money?"

"I'd think she fooled me purty bad if she wasn't rich."

"But what do you mean by rich? Don't you know, thir, a woman's riches are her affections? That the wealth she brings is in her heart, and that her full love is opulence enough for any man?"

"May be so, mum, but I've been married before, an' I'm past thirty-five, and, for my part, I'll take 'em every time when they have the real samoleons."

The woman settled back in her chair. She emitted a melancholy and despairing sigh, and a long silence fell upon the pair.

The train came in from Chicago. Two detectives arrived and were at once closeted in the dingy baggage-room with Pat Flynn and the town marshal.

Pat unbuckled the trunks with nervous hand. They crowded close to inspect the gruesome contents. Pat turned his head. He felt sickened.

"Ha!" exclaimed one of the lynx-eyed detectives. "Human teeth here on the floor. One incisor, two premolars!"

The marshal was about to explain, but just then the trunk lid was lifted.

With firm hand the detective pulled out

and held up an artificial leg. The other trunk yielded a wig of woman's hair—brown, wavy, and beautiful.

There were many other articles for the make-up and embellishment of the human figure, male and female, and that was the extent of the horrors.

The marshal, bearing the glad tidings of liberty, hastened to the inn.

He found the woman in a half-fainting condition, and muttering something about "the end of love's young dream."

tective, whom the thieves had bamboozled by switching the checks before making away with the loot.

Then came formal complaints and lawsuits from the man with the cork leg and the toothless woman.

Strange terms came to Pat Flynn's ears, such as false imprisonment, assault, shock, humiliations, property damage, alienation of affections, breach of promise, etc.

The badged and credentialed Patrick disappeared.

THEY CROWDED CLOSE TO INSPECT THE GRUESOME CONTENTS.

"You see," explained the man. "It's this way, Mr. Officer. By and by she asks me if I will tell her the name of the lady I was expecting and was talking about. So I up and tells her — Gwendolyn Hortense Wethersby.

"It just seemed to kind o' squelch her. Then it just struck me all of a sudden—by thunder!—that's her! An' say, I want to git out of here on the first train to Chicago. Seven o'clock, ain't it? I'll say for her, she wants to catch the first train out on the branch —an' that's no josh, either."

On the day following, carpenters made some repairs on the high platform west of the baggage-room, and they found two shoe-trunks concealed thereunder.

There they had been secreted and rifled at leisure, under the very nose of P. Flynn, de-

He did not part from the railroad lingeringly and regretfully, but he went like a meteorite.

When he landed he was a hundred miles away, where a brick-yard job claimed him at once.

So, for the last time, "Hist!" and "Aha!"

As for fads—one parting word.

There are only two safe ones for a railroad man. One is the chicken-ranch, the other is the fruit-farm.

These are so far removed, so inaccessibly in the future, so entirely impossible and harmless, that they merely stir the fancy and cannot endanger the job.

Never "fad" in the same orbit with the "job."

Danger!

Nerve in the Tower.

BY PETER MULLIGAN.

THE TRUE STORY SERIES. Notwithstanding the interlocking switches and automatic safety devices in every big railway terminal, the man in the tower has many experiences when the lives of scores of passengers and trainmen depend on his capacity for keeping a clear head and carrying out orders without the slightest deviation. In cases of emergency, the train-despatcher sometimes comes to his aid with instructions, but, as shown in the case of Towerman McManus, there is frequently no time to wait for orders, and then only a quick wit and a steady nerve can be depended on to prevent a smash-up.

A mistake of a train-despatcher can often be rectified before it is too late, but where the trains are speeding by at a mile a minute, the men who shift the levers are given no alternative but to keep their eyes open and be ready to do the right thing at the right moment. Very few of the traveling public are aware of the existence of the man in the little tower beside the track. Nevertheless, he is there, behind his bank of bristling levers, shunting the trains back and forth over the web of tracks like so many giant shuttles, playing a part in the safety of modern railroad travel that the layman might do well to study.

TRUE STORY, NUMBER FORTY-EIGHT.

When to Think Is to Act, and a Second's Delay May Cause the Destruction of Thousands of Dollars' Worth of Property and Cost Many Lives.

"TWENTY-THREE. All copy." The monotonous, measured clicks of the telegraph instruments that bind a railroad division into one unit, began talking to the tower men scattered along the nine miles of track that stretch through the New York Central's yards in the heart of New York City. All day and all night such orders came to them over the wires, and in each tower the men began to write as if they were so many automatons.

"Clear track No. 3 for light engine running wild against traffic."

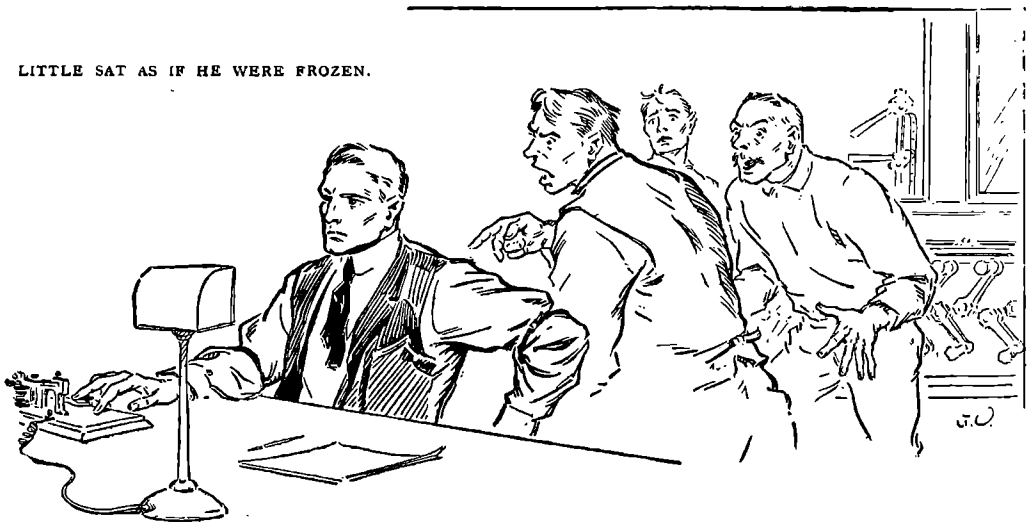
If the wire could have raised its voice it would have shouted. But even so, it could not have sent a more powerful flash of electric impulse to stir the tower men to action.

"Operators at Fiftieth, Fifty-Ninth, Sev-

EDITOR'S NOTE: All the stories published in this TRUE STORY SERIES have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single copies, 10 cents.

LITTLE SAT AS IF HE WERE FROZEN.



enty-Second and Ninety-Sixth Streets, notify workmen."

This was unnecessary. The operators were already on the move, but the despatcher was leaving nothing to chance.

"Set blocks on everything."

Long before the message was finished, the operators were at the levers, throwing switches, setting signals, and tying up traffic in the long tunnel that runs under Park Avenue for almost fifty blocks; for to each tower man had come an understanding of what might happen in that tunnel as the wild engine passed through.

Within were three hundred men laying the third rail for the electric system now in use. Hearing an engine coming from the terminal they would instinctively step on the in-bound track. But that was the very track over which the wild engine was sweeping.

A Mysterious Runaway.

How the engine ever got loose is a mystery that has never been solved. It happened three years ago, but there are men connected with the terminal who still have cold shivers at the thought that it might happen again.

The engine had just brought in train No. 8, due at the Grand Central Station at half an hour after midnight. When unhooked, according to custom, it was backed down to the coal-pit to be made ready for the first run in the morning. It was the sort of thing that is done every hour of the day in all railroad terminals.

But somehow—and here is the mystery—it suddenly developed one hundred and eighty pounds of steam, all it could carry, and started out through the yards.

Lou Smitten, who for twelve years had been a fireman on the Empire State Express and was at this time yard-conductor, saw it start, but although he had only a few steps to take, and took them on the dead run, he missed the runaway.

Warning the Workmen.

His fingers were just able to scratch the tender as he hurled himself forward in a desperate effort to catch the hand-rail, and then he rolled over and over in the cinders. The engine, meanwhile, was picking up speed at every revolution of the wheels, and was now beyond catching.

The whole yard heard it go out roaring. Its steam was up to the limit, and behind it trailed a white feather from the safety-valve.

There was but one thing to do—clear the track. This was no easy thing in a terminal where there is almost a train a minute. Even at that time of night the tracks were loaded with traffic, dead against which the engine was running wild.

In tower No. 1 was William Little, extra night despatcher. The moment he saw the engine, he jumped to the instrument and sent out the message that suddenly filled the tower men all along the line with galvanic action.

As he opened the key, the engine was already passing and going close to fifty miles an hour. It had but four short blocks to run,

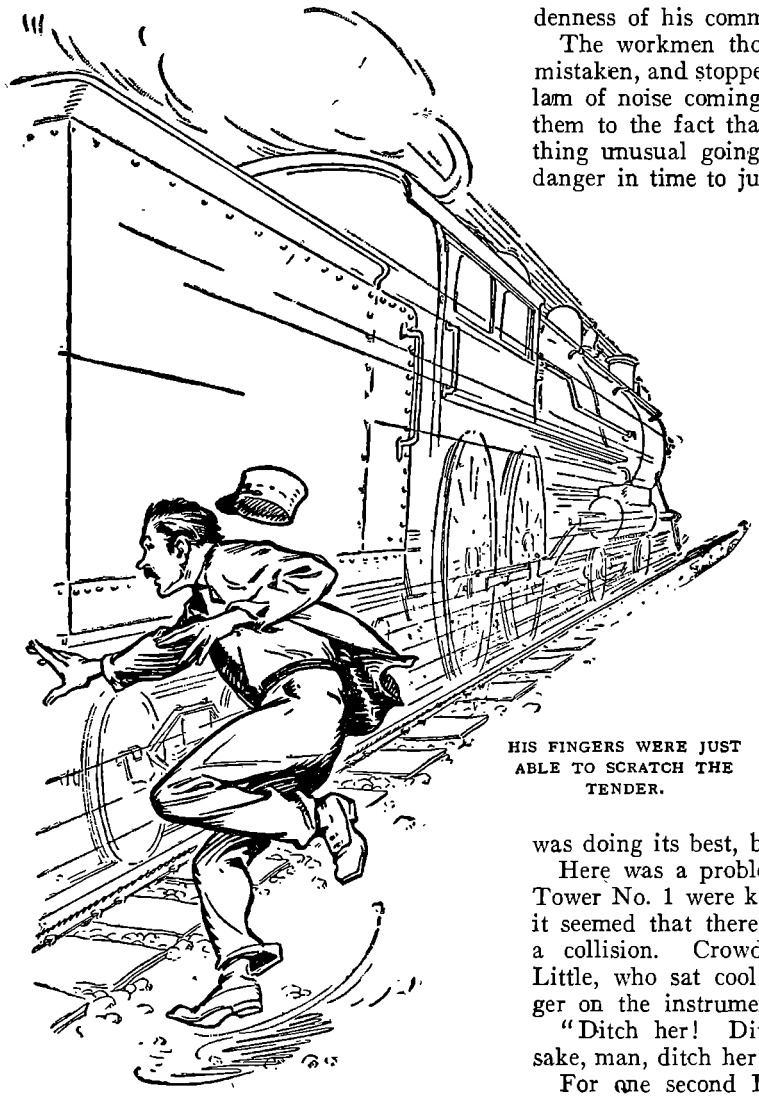
when it would be in the tunnel. Within that time, the operator at Fiftieth Street had to tie up traffic, and save the lives of the fifty men who were only a short distance inside.

Seizing his megaphone as he ran, he leaped down the tower stairs and entered the tunnel at the same instant as the engine, which was close beside him. Fortunately, the megaphone threw the sound of his voice forward so that it was plainly heard above the noise of the runaway.

"Jump to other track, quick!" he yelled.

An Impending Catastrophe.

The men were on the track on which they felt secure, but his sharp command made them obey instinctively. They jumped into what they had every reason to believe was certain death. Then there was a flash, a roar, and the wild engine rushed by.



HIS FINGERS WERE JUST ABLE TO SCRATCH THE TENDER.

The tunnel was lined with safety apparatus. Torpedoes were automatically pushed on the track, gongs were set ringing, slap-signals, intended to break the glass in an engineer's cab, pounded futilely on the tender, and, within the engine itself, there was a cab-signal ringing frantically. The noise in the tunnel was deafening.

At Fifty-Ninth, Seventy-Second, and Ninety-Sixth Streets there was a somewhat longer length of time in which to warn the workmen, but, instead of this being an advantage, it caused the operators difficulties which the tower man at Fiftieth Street, by the very suddenness of his command, was able to avoid.

The workmen thought the operators were mistaken, and stopped to argue. But the bedlam of noise coming up the track awakened them to the fact that there was really something unusual going on, and they saw their danger in time to jump out of the way. Of three hundred men at work on the tracks, not one was hurt.

At Ninety-Sixth Street the track leaves the tunnel, and at One Hundred and Sixth—only a few seconds' travel for the speeding engine—it is supported on an elevated structure far above the streets of Harlem. Approaching One Hundred and Sixth Street from the north, on the same track, was the Poughkeepsie local, which had already left One Hundred and Twenty-Fifth Street Station before the engine went wild. The local was gathering speed, and was doing its best, because it was late.

Here was a problem to which the men in Tower No. 1 were keenly alive, and to them it seemed that there was no way to prevent a collision. Crowding behind Despatcher Little, who sat cool and keen with his finger on the instrument, they cried:

"Ditch her! Ditch her! For Heaven's sake, man, ditch her!"

For one second Little sat as if he were

frozen, but during that second there passed through his head the whole panorama of the situation. If he listened to the clamor of the older men behind him, he felt certain that the ditched engine would jump the wall of the embankment and smash down into the street.

The Devil and the Deep Sea.

That he dared not risk, for he knew not how many people might be in the street below. But the alternative was hardly better. A picture of a head-on collision with the Poughkeepsie local flashed into his mind as the older men kept calling to him frantically:

"Ditch her! Ditch her!"

There was one chance left, and he meant to take it. If he failed, it meant everlasting disgrace. Success lay only in providing for other troubles farther up the line, but there would be time enough to think of the other troubles.

Not to follow the unanimous demands of the others took strength of purpose, but Little, although he was only twenty-three years old, did not hesitate.

The situation was, in fact, worse than the others realized. There was almost a minute to get the Poughkeepsie local to One Hundred and Sixth Street, where it would be switched to another track. If this could be done, all well and good; but here a third difficulty blocked his way. A dead train on the other track was coming in on passenger schedule, and if it reached One Hundred and Sixth Street at the same time as the Poughkeepsie local, the cross-over would result in another and hardly less disastrous collision.

But, within the second that all these alternatives shot through his mind, in spite of the cries of "Ditch her! Ditch her!" he saw his way clear.

"Shut up. Mind your own business!" he roared, though afterward he did not know he had opened his mouth. His mind was on the order he was about to give to "Kid" McManus, the tower man at One Hundred and Sixth Street.

One Wreck Averted.

Meanwhile McManus was doing some thinking on his own part. All the alternatives that passed through Little's mind shot in hot waves through his own. He, like all the other operators, had received the original message, and he knew that there was no time to lose. He could see the Poughkeepsie local so close to him that it hardly seemed safe to throw the switch before it, but he had received orders to clear the track, and it had to be done.

At full speed the local took the cross-over and shook and swayed as if it was going to leave the rails, but to McManus it seemed to be crawling. Down the track he could see the wild engine coming, and made bets with himself as to whether the local or the engine would win. As the last car passed he swung the lever and closed the track before the wild engine. Had it been five seconds earlier, it would have struck the last coach and gone over the embankment into the street.

Then McManus had time to think, but to Little the problem that the wild engine presented was one bristling with difficulties. The other men in Tower No. 1 held their tongues now, principally because they felt certain that he would ditch the engine as it ran into the Mott Haven yard. But here, again, Little knew he dared not take the risk.

There was a tower directly in front of the only feasible place at which to derail it, and, as it stood under an embankment with the tower man almost on a level with the track, the engine would plunge straight through it. To order the tower man to ditch the engine, would have been asking him to kill himself.

Some Quick Lever Work.

Another possibility came to his quick wits, and while the engine, going faster than a mile a minute, went a distance of twenty-four blocks in less than two minutes, he raised the operator at White Plains, on the New York, New Haven and Hartford, which also runs through the Mott Haven yard, to learn what tracks were clear on his division.

The answer came immediately, but to make the proper switches at Mott Haven required the few remaining seconds. Instead of giving the whole order at once to the tower man, as he would have done under ordinary circumstances, Little called for switch after switch to be thrown, and before the last was closed, the engine was already slamming from track to track.

But the rails, as if by magic, jumped to place ahead of it, taking it safely on a zig-zag course through a yard that was full of moving cars and switch-engines, until it struck a long stretch of open track out through the Bronx, along which it was allowed to run until its steam gave out.

Altogether that engine traveled about

twenty miles, making the first nine of them in eleven minutes, which is much faster than the time made on any schedule over the same piece of track.

For that ten minutes' work, Little was made chief despatcher, and, although he is only twenty-six now, he is known as one of the most efficient men connected with the telegraph end of any railroad in this country.

Among telegraphers, his feat is regarded as the quickest piece of work ever done by a despatcher. The telegrapher who told me the story, who was one of the men in the tunnel, said that the name of McManus, however, should not be forgotten, either, for he also showed a quick wit and a steady nerve. If he had waited for Little to tell him to make the cross-over, there would not have been time.

Cases where tower men by independent thought have averted wrecks occur much more frequently than any one knows of, but since disaster is prevented and the trains go on their way unharmed, the facts rarely become public.

Where the Tracks Crossed.

The Greenport express was bowling along the main line of the Long Island Railroad only a short time ago, and was slamming through station after station with all signals set at clear. There was apparently nothing in the road, and nothing was expected to block its progress, for it had the right of way.

After leaving Westbury, as it neared the end of the run, there was no stop short of Jamaica, and the engineer began to pick up speed for the final spurt. He rattled through Mineola; New Hyde Park went by in a blur; and now, well in his stride, he shot by Floral Park as if there were no such station on the map.

It was only fifteen miles to Long Island City, and the journey would be over in a few minutes, but while no one on the train, from the engineer to the most complacent passenger, had any thought of trouble, a trap was being set that all but turned the train into a shambles.

A local from Hempstead, loaded down with passengers, and late, pulled into Floral Park, and, stopping with its coaches immediately across the main line, began to unload them. The passengers thronged over the track with no knowledge or fear of the Greenport express, and the scene was set for a slaughter-house. Worst of all, the man whose business it was to prevent the Greenport express from smashing through the local, felt as secure about the matter as any one.

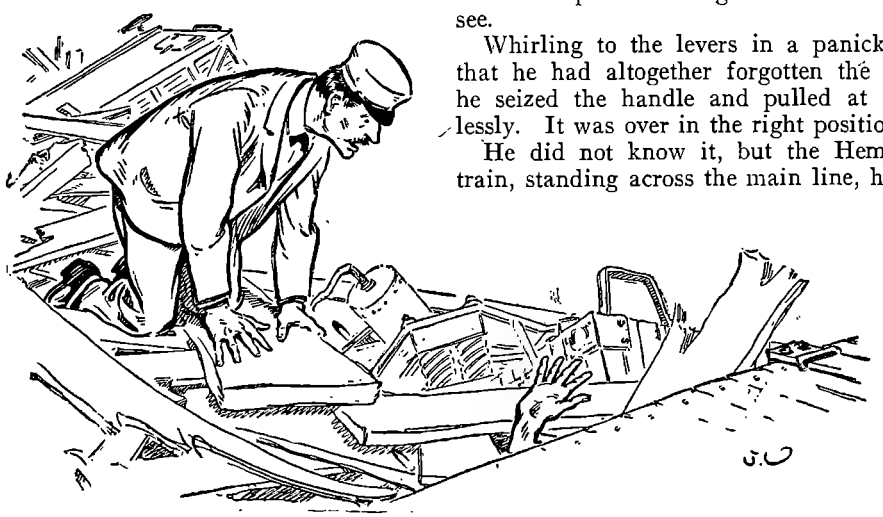
It was a case where the automatic signal was not expected to give warning. That was the affair of Towerman D. A. Sharp, and he, having set the signals against the Greenport express, turned unconcernedly to watch the crowd. His duty was done. He had set the signal, and there was nothing more for him to do but wait to send the semaphore-blades to clear after the Hempstead train had pulled out. He knew the Greenport express was due, and he looked up the track casually.

Signals That Failed.

As he gazed, his eyes suddenly stared in terror and his blood ran cold. There was not a semaphore at danger as far as he could see.

Whirling to the levers in a panicky fear that he had altogether forgotten the signal, he seized the handle and pulled at it uselessly. It was over in the right position.

He did not know it, but the Hempstead train, standing across the main line, had de-



"SAY! ARE YOU ALIVE DOWN THERE?"

veloped some defect in the wiring, and caused a short-circuit that had put out of commission the whole signal system for several blocks.

Under such circumstances, a man without initiative would have been lost. All that he was accustomed to rely on as infallible had absolutely failed him. An earthquake-shock or a bolt out of the sky could not have found him less prepared. In such emergencies the average man fails, but here Sharp showed his metal. The moment he saw that the signals would not work he was down the stairs in a jump, running up the track, waving a flag, and gesticulating wildly with both his arms.

"She's got to stop!" he said.

By this time the express was spinning past semaphore-poles that should have been an absolute bar, and by the time the engineer saw Sharp there was barely enough time for him to shoot on the air and jerk the train to a standstill. It stopped as if it had struck eternity.

"SHE'S GOT TO STOP!"

Inside, the passengers complained among themselves at the jarring they received, but a few minutes later, when their train continued on its way to New York, no one noticed the young man in the tower who had just prevented a wreck in which a score of people might have been killed.

A Train on His Back.

Among telegraphers these stories circulate, but the world at large knows nothing of them. There is hardly a tower man in this country who has not at some time been called upon to take quick action.

An instance famous within the profession, but never told outside, would have made a hero of A. A. Leonard, now one of the best-known men in the business, but to his fellow telegraphers, who are the only ones who ever heard it, it was all part of the day's work.

When he was a boy, just learning to read Morse, and holding down an operator's job at Barree, on the middle division of the Pennsylvania, he averted a wreck that would have gone down in history had it occurred. Like most railroad stations, the one at Barree was built with a bow-window, so that the operator could look up and down the track, and in this window Leonard was one day sitting, unknowingly awaiting the most thrilling moment in his life.

A fast east-bound freight was pounding past ten feet in front of him, hurrying to reach a siding two hundred yards down, to clear the way for the mail-train, No. 13, which was due in five minutes. Suddenly right before him a car slumped down on the track with a broken axle, that began tearing up the ties, while a flagman who was passing over the top leaped wildly into the air. After that for fifteen seconds there were plenty of things happening.

The car behind the one with the broken axle turned sharply at right angles, reared, and made a bolt directly through the waiting-room, catching Johnny Clemons, the station-agent, in the back and shooting him, surprised but unhurt, through the back door.

The next came quartering, caught the bow-window before Leonard had a chance to move, and cut it away from the building. Before the piling-up had finished there were seventeen freight-cars within four car-lengths of track, and somewhere under the wreck was Leonard.

Cut, bruised, shaken like a rat, and all

but unconscious, Leonard knew what was happening to him, but it seemed as if additional cars would never cease piling up on top. When they stopped, to his great surprise he realized he was still alive, although he had every reason to believe that he ought to be dead.

He tried to think, but his head was humming so that he could hardly collect his thoughts. He also felt as if he had lost a part of his body, but he soon discovered that he was intact, though his arm was wedged upward at an angle that caused him excruciating pain.

In his head was a jumble of something vaguely connected with the flagman he had seen jump. He seemed to be having a nightmare, and could not collect his evasive ideas.

Through his pain, after the prolonged agony of a minute, it came to him—No. 13. The flagman was probably dead. What could he do where he lay? It might take them hours to dig him out.

Above his head his hand felt free, and, in the hope that some one might see it, he wiggled his fingers. To expect his hand to be seen through the wreck of seventeen cars was ridiculous, but it was the only chance he had.

Johnny Clemons had by this time regained the breath that had been knocked out of him, and rushed back inside the station-house to see what had become of Leonard. The first thing he noticed in the pile of wreckage was that feebly waving hand. It was battered and bleeding, and seemed to be giving some ghastly signal.

He began to pull at the wreckage, but making no headway, he called out:

"Say! Are you alive down there?"

Leonard heard as if he had yelled in his ear. There was only a piece of timber and some rubbish between.

"You bet I'm alive," he answered. "But don't mind me. Look out for 13."

Then Clemons was gone, and, after an eternity of suffering, he returned and dug Leonard out. Meanwhile he had stopped the passenger-train and saved a score of lives, but all the passengers ever knew about it was that there had been a wreck down the track, and their train had been delayed several hours.

There are a surprising number of tramp operators working over the length and breadth of the country, and, although they might be regarded as too easy-going to bear the responsibility that is placed upon them, it is seldom that one of them fails. Also, now and then, one gets an opportunity to play a heroic part and a chance to make good. It is in a time of stress that such men always arise to the emergency.

At Albion, Illinois, on a cold and stormy night last February, a tramp operator took charge of the traffic for the Southern Railway. He had just landed the job, and was particularly glad to be back to the key and form a part again of the never-ending life of the railroad. The good-fellowship of the passing train-crews warmed his heart, and he made up his mind to stick to his job.

He bubbled over with good feeling, and rubbed his hands so much that he did not get down to the rather immediate business of learning the schedule, and before he expected it, an engine swirled out of the storm, trailing behind it a string of brightly lighted coaches filled with passengers. With the snow rail-high deadening the noise, it slipped in upon him unnoticed, but the moment he saw it pulling out he realized that he had an order to hold it on the siding.

He rushed outside, lantern in hand, but only a passenger or two saw the lantern, and to them it meant nothing. This left but one chance—to catch the train. But, at the first step, he slipped, and the lantern went out. When he pulled himself to his feet the last car was already passing. He took another step and slipped again.

The train was now whirling along much faster than he could run, but it was not the first time that he had made a flying leap to the platform. He took a quick step, jumped, and clung on in desperation as his fingers closed about the frozen rail.

Pulling himself up, he attacked the rear door and found that the car was dead. It was no time for ceremony. With his fist he broke the glass, made his way through the front end of the car in the same way, and stopped the train.

When it backed into the siding at the station just in time to get out of the way of a double-header freight, he closed the office, took his hat, and departed for parts unknown.

A bright headlight must be backed by watchful eyes. Brilliance needs intelligence behind it.—Brags of the Big Eagle Eye.

THE ENGINE'S LEAP.

BY MERRITT CRAWFORD.

Was It a Case of Suicide, or Did the Curve Prove Too Much for "Old Kate"?

MANY men on the E. R. and Y. will recall the accident at the curve just beyond the station at Vannette, which gave Engine's Leap its name; yet I doubt if any of them have ever heard the strange version of it, here made public for the first time, or its stranger sequel.

For many reasons it has seemed advisable to conceal the true names of the places and characters that have a part in the story, although, doubtless, certain old-timers will have little difficulty in identifying them. For these, all explanations will be superfluous. But for the benefit of those others who are unfamiliar with the serpentine windings of the E. R. and Y., I will say that Vannette is one of those unimportant, little side-hill stations, clinging to the lower slopes of the Alleghanies, that lie between Eurenia, the head of the Rockland Division, and Meadowville, its southern point. Seven miles below Vannette, in the direction of Meadowville, is the Junction.

On the official map of the E. R. and Y., in the train-despatcher's office at Eurenia, Engine's Leap—the "Leap," it is usually called—is designated simply, "Block Signal No. 87A, Rockland Division," because at the northern extremity of the curve, on the very tip of the crescent, and just out of view from the station-agent's window, there is a semaphore. Opposite the station itself is a siding.

From the outer edge of the "Leap" a green slope stretches abruptly down to the road that skirts the base of the hill, sixty feet below. The slope is seamed and scarred with deep, ugly gashes, now almost obliterated by the rains and snows of a dozen seasons, although beneath the wild blackberry-bushes that riot above the ivy-clad stone wall at the roadside may still be found fragments of charred and rotting wood or rusted iron, the last evidences of the wreck which gave the curve its name.

Late one mid-August afternoon I was leaving Vannette, after my annual visit to a venerable maiden aunt, and, by some miscalculation, I had reckoned the arrival of the local, which connected at the Junction with the night train for the city, at exactly one hour earlier than it was actually due. When I had obtained this interesting information at the ticket-window, and stepped out on the platform again, I became aware, for the first time, that the rickety old phaeton which had brought me was gone.

Silas, my aunt's man, had evidently felt acquitted of all further obligation to me when he had deposited my trunk upon the baggage-truck in front of the station. Probably he was also of the opinion that, unless he hastened, the tip I had given him would turn into brass or dead leaves, like the magic money of the "Arabian Nights," for the phaeton was the center of a dust-cloud just then rapidly disappearing down the road.

As I stood gazing irresolutely after it, uncertain whether to laugh or be vexed, old Briggs, as he was generally known on the countryside — he had been station-agent, operator, and baggageman at Vannette for twenty years—came out of his office.

"What's the matter?" he inquired, slipping the check on my trunk, as he observed my look of annoyance in the direction of the vanishing Silas. "Did you forget somethin'?"

I assured him that I had not, and that I was only annoyed at the defection of the thirsty Silas, when I might have wished to send him back for something. He grinned sympathetically, and, mechanically, I offered him the courtesies of my cigar-case.

"Thanks," he said, as he selected a weed. "I'll smoke this after I've watered those flowers, if you don't mind? I guess they need a drink more'n I do a smoke just now —maybe as much as Si does," he added dryly.

He pointed toward the grass plot back of the station, where a large bed of red geraniums and sweet alyssum bloomed with a freshness and profusion that spoke well for the care of their owner.

My acquaintance with old Briggs had covered a period of several years, owing to my visits to the aforesaid aunt, but it had seldom gone beyond an exchange of ordinary civilities, and I had never observed him particularly. Now, however, I did so. A man who loves flowers is always worth cultivating; and as old Briggs circled the flower-bed, watering-pot in hand, it was evident he belonged in this category. Now and then he placed it on the grass beside him while he plucked a dead leaf or withered blossom from one of the plants as tenderly and carefully as a mother would treat an ailing child.

"You seem fond of your flowers, Mr. Briggs," I said, by way of opening, "and they are certainly worth your care. I don't know when I've seen any that are lovelier or better kept."

He raised his head with a quick glance of appreciation. It was a large head, rather too large for his spare, little body, and thatched over with thin, sandy hair shot with gray. But it was his eyes that compelled my attention. Just ordinary brown eyes, the casual observer might have said—only there was in them an indefinable something, a strange mingling of sadness and expectancy as he leaned over the flowers, with back of all a haunted, apprehensive look that did not fit well with his years or occupation. This, I observed later, was habitual.

As he looked toward me he emptied his watering-pot.

"Are you fond of flowers?" he asked.

I nodded.

"They're about the only company I have," he said slowly, "since my daughter married and went up to Eurenia to live." Then he added, as if in apology for a weakness: "I'd get pretty lonely sometimes—if it weren't for them."

When he had finished his labors, he came and sat with me in the shade of the big elm that grows by the station, and we talked. At first our conversation was desultory, for the old man was shy, and hesitated about voicing his opinions when he was uncertain how they were going to be received. But, little by little, he gained confidence, and, as men who live much alone are wont to do when they have a sympathetic listener, he began to talk freely. He had been with the E. R. and Y. since boyhood, and he told me many interesting incidents—little fragments and glimpses of railroad life, observed from his simple view-point, during his forty years' experience.

By degrees our talk wandered from the practical side of railroading to the unreal, the extraordinary, the unaccountable, that happens in every railroad man's experience. Old Briggs recited many interesting reminiscences. Some of them had occurred within his own knowledge, but most had been related to him by others. He did not pretend to vouch for these last, although it was apparent, from the way he watched for their effect on me, that he more than half believed them.

He told of the odd and, at times, almost human freaks and failings of engines; of air-brakes that set without the hand of the engineer upon the lever — Briggs had been an engineer himself until his eyesight had failed him; of engines that refused to steam, even though the gage showed plenty of pressure, and of vicious vampire-engines that had crushed the life out of their masters, and could always be depended on to do the unexpected.

I listened to the old man as one listens to the yarns of some venerable tar, allowing always the proverbial grain of salt; yet, so simple and direct was his speech, so obvious his belief in much he was narrating, that I forbore showing any incredulity. I must confess that, during the telling, I half believed them myself, and even now, in the light of later events, I cannot afford to be too cynical.

From time to time, as he talked, old Briggs rose from where we sat and glanced nervously up the track in the opposite direction from that in which the local was to come. It was evident that, for all his volubility, his mind was on other things. Each time he returned to his seat he resumed the conversation only by the exercise of considerable mental effort. He fidgeted constantly, and seemed uneasy and apprehensive; one might even have said expectant.

"Are you expecting a north-bound train before the local?" I inquired curiously on the occasion of his last look up the track.

"No-o," he answered hesitatingly; "at least—not exactly."

"I beg pardon," I returned; "but I

thought, from the way you kept looking up the track, that you must be expecting something."

He made no reply. Instead, he took out his watch, and made a brief mental calculation, all the while shuffling nervously up and down the platform, as though debating some question in his mind. He pulled a long, spearlike blade of grass up by the roots and chewed it savagely.

"I've got to tell some one," he said almost fiercely at last, and more to himself than to me.

Then, as if his mind had been suddenly made up, he came and stood in front of me.

"Excuse me, Mr. Ordway," he said with a directness that was yet diffidence, "but—er—but do you believe in ghosts?"

The question was so bizarre, so sudden, that it startled me, though I pride myself on being phlegmatic; but I admitted that I had some doubts on. the subject. Ghosts, toward the latter end of an ideal August afternoon, seem very far-away possibilities.

"I don't mean ghosts of people," he went on, ignoring my reply, "but ghosts of engines—of engines that have been scrap-iron for years, maybe?"

I still confessed some doubts—at least my face did; for, although I had said nothing, he continued exactly as if I had denied their possibility.

"I didn't believe such things, myself—once," he said, "but I'm an old man now, and maybe an old man can see things that a young one can't. Anyway, you can soon see for yourself. It'll be here in about eighteen minutes." He glanced at his watch again.

I did not know what "it" was, but I was content to wait and see. Ghosts, be they human or otherwise, have few terrors for me when the sun is shining. Yet I could not help looking at old Briggs curiously. He did not observe me, for he was gazing thoughtfully toward the curve beyond the station.

"Yonder's Engine's Leap," he said abruptly, as though I had asked him the question. I felt relieved at the change of subject.

"It was a runaway freight-engine that jumped the track there, wasn't it?" I inquired. "I think I remember hearing about it six or seven years ago, when I first came to Vannette."

He nodded.

"It was a suicide," he said.

"But I thought that only an engine and two or three empties were smashed—that no one was killed?" I corrected.

"There wasn't," he repeated; "but it was a suicide, all the same."

I checked the question on my lips, for I saw that the old man was not through.

"I hadn't meant to tell anybody about it," he said gravely. "Most of the boys would laugh at me if I did; but, as sure as I stand here, what I'm goin' to tell you is true—as true as the Book."

He paused and, after a moment's hesitation, resumed his seat beside me.

"Did you ever hear of a man—an engineer," he queried, "whose engine was his mistress, who fussed over it and petted it, for all the world as if it was alive?"

I shook my head in negation, for I had never heard anything of the kind. It was an idea entirely novel to me.

"Jack Brodhead was one of that kind," went on old Briggs. "There's engineers like him on most every division—until he met my daughter Nellie. Had the same engine for twelve years—'Old Kate,' he called her, although, like the rest, of course she had a number—and Jack had taken care of her, as fireman and engineer, from the time she was brought from the shop.

"He was forever foolin' and tinkerin' about her, even on his time off, and many a day's pay he blew in buyin' brass fittin's for her that weren't included in the company's supplies. Brass oil-cans, brass lanterns, brass waste-cups, everythin' brass—inside her cab, she wasn't anythin' else, as far as the rules permitted—and all of it polished so you could see your face in it any time.

"Jack had even got a couple of fine brass flag-sockets to put on Old Kate when they had an excursion or political jamboree to take out, though that wasn't often, and a pair of pretty silk flags to go with 'em, too. He certainly did make a lot of that engine, maybe because she was his first, and, in fact, the only engine, he'd ever taken out reg'lar.

"Again and again, Jack and McKegney, the roundhouse boss, almost came to blows about replacing some part of Old Kate that maybe showed only the least bit of wear and tear. But Jack 'most always won out, for the super liked him, and McKegney knew that if an issue was made he'd get the worst of it. So he had to give in, even though it did go against the grain.

"Even on his day off, he used to go over before the local went out—Jack was reg'lar on the local then, same as he is now—to see

how Old Kate was, though there wasn't an extra but hated to take her out of the yard, for they all agreed that of all the cranky, unreliable engines on the division, she was the worst.

"'You don't know how to treat her right,' Jack would say to them. 'Kate's got feelin's just like any other lady, and she don't like being mauled by a lot of plugs that don't appreciate her.' And after a while most of the extras half agreed with him. Old Kate would climb a hill—and there's plenty of them on the Rockland Division—a goat couldn't eat grass off of, if Jack was in the cab; but let any other engineer take her out, and she'd lay down on him at the first chance.

"Naturally, when Jack began payin' attention to Nellie, he couldn't spend so much time fussin' around his engine. He couldn't be at Eurenia and here, too, on his days off; and when a man's got a girl on the brain he ain't apt to waste much time thinkin' about an engine, especially an engine that ought to have been pullin' freight for three or four years.

"Fact is, Old Kate would have been on freight long before she finally was if it hadn't been for the care Jack took of her; but, of course, with other things to think about—a home, and fixin's, and Nellie—he let up a lot. Just about the time Jack and Nellie were goin' to be married the company decided to put one of a new lot of engines in Old Kate's place—she took the local—the train you're waitin' for—from Eurenia to Meadowville, and back.

"'Maybe you won't be so partikler about your new engine, Brodhead,' said McKegney, when he told Jack of the coming change. 'Next one who gets that old crab of yours won't be botherin' us at the roundhouse so much, that's a sure thing.'

"Jack laughed as he crawled out from under Old Kate with his oil-can and a fistful of waste in his hand.

"'I'm to be married next week, McKegney,' he said, 'to the best little girl in the world, so I guess I can stand losin' Old Kate; though, if they'd taken her away from me a year or so ago, maybe I'd have cut up some. I used to think there wasn't another engine like her on the E. R. and Y.'

"Jack started to climb in under her again—backward, you understand—to finish up his job, when McKegney yelled: 'Jump quick, Jack! She's movin'!'

Jack jumped. He'd felt her 'most as quick as McKegney had seen her drivers move. Another second, and she'd have crushed the life out of him.

"'By Heavens, McKegney,' he said, as he swung into the cab, though Old Kate had moved only about three feet, 'that's the first time she ever tried that since I've been on her. But how did she get steam in her cylinders? The throttle's over as hard as I can jam it.'

"'I dunno,' growled McKegney; 'good thing for you the big, black divil ain't tried it before. Send her up to the roundhouse when you get your new engine, and we'll fix her up for her new boss. Meanwhile, you'd better watch yourself. She's layin' for you.'

"The day Jack got his orders to take over his new engine, he seemed relieved. Nellie and me were waitin' here on the platform—she always waited for him—when the local pulled in without Old Kate. She was in the roundhouse, bein' overhauled by McKegney's gang.

"I asked Jack how he liked his new engine.

"'Fine,' he said. Then he leaned over and whispered, so that Nellie couldn't hear: 'I'm mighty glad to get rid of Old Kate. It may seem foolish, but twice within the last week I believe she's tried to get me. Next time she might have better luck, so I'm glad she's gone where she can't do any harm.'

"I laughed. The idea of a big, strong chap like him havin' such notions struck me funny. But I think differently now. I know things that I didn't know then, and, besides—"

Old Briggs paused, as though overcome by some vivid recollection, and nervously wiped the perspiration from his forehead. I made no comment, and he went on.

"Then Jack told me what I've just told you, and how, a second time, she'd have got him if she hadn't been over an ash-pit. He didn't say what was the truth—that he was afraid of her. Each time she moved only about three feet—just enough to mash him if he'd been where she thought he was.

"Before I could ask him anything more, the conductor pulled the rope, and, with a wave of his hand to Nellie, Jack and the local were off toward the Junction. I didn't think much about what he had said—not then. Later on I did, though.

"It was Wednesday when he said this, and on Saturday the weddin' was to come off. On Friday, Nellie came up to the station as usual to meet him. The night before Old Kate had grunted through, pullin' a heavy

second-class freight. She was due back with a string of empties from the Junction any time before midnight that day.

"I told Nellie how sour she looked as she went past, wheezing like a horse with the heaves. 'You'd hardly know her,' I said.

"Nellie tossed her head.

"'Old Kate's the only habit Jack had,' she says pertlike, 'and I guess he don't mind losin' her, now that he's goin' to get me. Besides, she'd ought to have been pullin' a freight these three years.'

"I didn't say anything. Girls are girls, and engines are engines, and both are uncertain in some ways. But I couldn't help thinkin', just then, of what Jack had told me. It hadn't struck me before, but I saw it then, that Jack felt toward Old Kate someways like a chap does toward a woman he's thrown over. It seemed to me I could even see that cussed jealousy between woman and woman showin' in my own flesh and blood when Nellie spoke of that old has-been of an engine.

"Maybe I'd have said somethin' about it, but I was busy lightin' up. It was gettin' dark; for it was along in the winter time, you know. Just then Nellie looks up at the clock.

"'Jack must be late with 26,' she says anxious-like; 'he'd ought to be here now, and I haven't heard him whistle yet at the south-end crossin'.'

"As she said it we heard him blow, three miles down the grade, and we both went outside. There was a trunk to go down on the local, and I put it on the truck there, and pushed it to the end of the platform, so's it would be opposite the baggage-car that's at the back end of the train.

"Just as I got it down there, Nellie sings out—I taught her the code when she was knee-high to a mouse: 'Oh, dad, they're callin' you from the Junction!'

"I ran back, thinkin' it was some special orders for the local, maybe; but as I heard it, somehow I knew it meant hurry.

"'VS—VS—VS'—that's Vannette—it was clicking, 'VS—VS—VS.'

"Quick as I could get there, I grabbed the transmitter and answered. It was Jim Gaffney, up at the Junction, sending.

"'Hold 26 on siding—quick,' he rapped over the wire; 'engine running—wild—'.

"I didn't wait for any more; I jumped for the door, Nellie ahead of me. As we ran out on the platform again, way down the track toward the Junction, faintlike at first, but gettin' louder every minute, we heard the umpty - tumty - tumty - tump, umpty-tumty-tumty-tump of the runaway. It's downgrade, you know, all the way from the Junction. It came over me in a flash what we were up against.

"Jack and the local must be still a mile away—it's a stiff two per cent rise from south-end crossin' here—and he never could make the sidin' before that wild engine, judgin' from the way it was comin', reached us. There was only one thing to do. If we held the local on the block around the curve, by throwin' the switch from the main track into the sidin', maybe I could ditch the runaway. It was the only chance.

"'Nellie,' I says, as we ran down the track toward the switch together—it's a middlin' long piece down the track there—'run back to the station—quick!—and set the block.' She understood, and I heard her gulp as I stumbled on in the darkness. And all the time that umpty-tumty-tumty-tump, umpty - tumty - tumty - tump, gettin' clearer every second. Maybe 'twas imagination, but it seemed to me that it was right behind me. I could hardly breathe, and my chest seemed as if it was a solid chunk of lead.

"Just before I got to the switch—the track was a glare of ice—I slipped and fell—I could see the glint of the runaway's headlight on the rails as I went down. I must have hit my head, or something, for I was out for a second, I guess, but I rolled over out of the way, and scrambled to my feet again, somehow.

"Then I fell again—I must have been dizzy—with my hand almost on the switch-lever. But I couldn't reach it. Everything happened so quick, it was all mixed up. I heard the local's brakes screech as Jack gave her the air, and her stack and the front of her cab swung round the curve before he could stop her and reverse. She'd overrun her block fifty feet, and how he had the nerve to stick to her and not jump, with that other train comin' smash into her, I don't know. I guess Jack don't, either.

"Then I heard Nellie scream: 'Oh, dad—dad—it's Old Kate! it's Old Kate!' The runaway roared over me—I wasn't two feet from the rail—there was a ripping crash and an explosion, and I didn't know anything more till I came to in the station, with Jack and Nellie hangin' over me, and all the local's passengers tryin' to make out I was a hero."

Old Briggs broke off for a moment, and again looked nervously up the track.

"The experts said," he went on, after a

short interval, "that, striking the curve at such high speed, Old Kate was bound to leave the rails, but I don't agree with 'em. If the local had been on time, she'd either have been in front of the station or on her way to the Junction, and nothing this side of a miracle could have saved her. Perhaps 'twas a miracle, after all. But I think it was a plain case of suicide. It looks to me as if Old Kate killed herself out of disappointment, because she missed the local.

"There are certainly some things in the story that seem to support your theory," I answered; "and at least it is most interesting. But what has it all to do with ghosts, except that it is somewhat uncanny?"

"That's just it," he replied; "if it wasn't for that part, I'd never have thought Old Kate was a suicide—a real suicide. She *walks* — though, maybe, that ain't exactly the word to use about an engine—and that's what made me think first she filled herself. It's eight years almost since she took the 'Leap,' and at first I didn't see her reg'lar, but now she comes through—just as she did that late winter afternoon — always on a Friday—the day she did it."

I started, for the day was Friday.

"At first she fooled me," he went on earnestly, "and I used to set the block and run for the switch. Even now she fools me sometimes. Sometimes I think it's a warning—a warning for me or Jack, though he's never seen her."

I thought of what he had told me, of his run for the switch, and his fall on the icy track. Perhaps he had received some injury not apparent.

"But, Mr. Briggs," I suggested, "surely, after so many years, it can't be a warning; and, after all, are you sure it isn't your fancy? You tell me you are much alone—"

"Listen!" he interrupted, raising his hand. "She's coming—now."

The harried, apprehensive look in his eyes deepened. I listened intently, but I could hear nothing but the drowsy chant of a distant cicada and the plaintive chirping of a family of crickets in the next field. Far away, a locomotive tooted shrilly and long.

"That's the local at the south-end crossin'," he said significantly; "the other train —gets here just before it."

Still, I could hear nothing. Old Briggs grew visibly more tense. He pressed his lean, gnarled hands to his temples.

"Can't you hear her—yet?" he queried. "Look! You'll see her clearing the bend."

I looked, but I saw no more of Old Kate than I had heard. It was different with my companion. That he saw her clearly, vividly, was written in every shaking line of his pallid face and staring eyes. I was turning away in pity, when suddenly, at the far end of the platform, I saw some fragments of paper swirl and eddy through the air exactly as if disturbed by the passage of a train. All along the platform line the dust rose and fell. A puff of wind swept over us. Yet I saw nothing, absolutely nothing, nor did I hear anything but the quick, labored breathing of the old man at my side. He clutched my arm convulsively.

"Thank Heaven," he said fervently, "he's passed!"

Instinctively, I looked toward the "Leap." Around it slowly swung the engine of the "local," and an instant later the train drew up at the station.

Brodhead clambered down from the cab.

"What's the matter, old man?" he asked kindly. "You look as if you'd had a touch of the sun."

"I'm all right, Jack," said old Briggs shakily, and, without saying good-by to me, he turned and went down the platform to see my trunk safely aboard.

When I came back to Vannette, the following year, there was another and younger man who received my trunk on the platform.

"Where's old Briggs?" I asked him.

He did not quite understand.

"Why, he's dead," he answered bluntly.

"Dead?" I echoed. "When? How?"

By this time the new agent had observed that my trunk was checked from the city.

"Oh!" he said shortly. "I was wonderin' how you hadn't heard about it. 'Most every one 'round here has. The old man died the night of the landslide at the 'Leap,' last winter. It was heart disease or apoplexy — they say he hurt his head, eight or nine years ago, an' maybe an artery burst—or something.

"They found him lyin' up by the switch there—though why he'd gone there nobody could make out—but he'd set the block all right, and the train was saved. There was something funny about it, though; for Jack Brodhead, the engineer—he was a son-in-law of the old man's—and his fireman both say that the slide happened after they stopped on the block."

"Then it was the local?" I queried.

"Why, yes," answered my informant with evident annoyance; "but I thought you didn't know anything about it?"

"I don't," I said. And I meant it.

Told in the Roundhouse.

BY WALTER GARDNER SEAVER.

HERE are some stories about a lively gang of railroaders who liked to play tricks at weddings. They were running on lines in the Middle West back in the early eighties, when rules were not so strictly observed as in these days. Be that as it may, you will recognize in these yarns many happenings that do occur in our times, even if it is not good railroad business to run excursion trains to hangings.

An Episode in a Monkey-Cage, a Runaway Train that Played Havoc with a Rube's Wagon, and an Engineer Who Took His Girl in the Cab and Eloped with Her.

"TALKING about tricks played at weddings," said Jack, "I believe that one of the funniest as well as one of the most unpleasant jokes, for the victim, was played upon Jake Brown by the boys of the Missouri Pacific, at Sedalia, Missouri.

"To give a thorough understanding of the matter, I must tell you about Jim Merrifield, and the causes that led up to the perpetration of the trick. Everybody knew Jim Merrifield. He was running freight on the Sedalia and Lexington branch. The Katy was a part of the Missouri Pacific then, and five divisions centered at Sedalia.

"On the Katy, there was the division from Sedalia to Hannibal, and from Sedalia to Parsons; and on the Missouri Pacific, from Sedalia to St. Louis, Sedalia to Kansas City, and Sedalia to Lexington. If there was any devilment going on, Jim Merrifield was sure to have the credit of it, though he may have been at the other end of the division when the affair occurred.

"At that time there was a lively gang of railroaders in Sedalia, and they used to make things hum. If the railroad interests had been taken out of the town, there would not have been much left. The Sedalia *Bazoo*, published by the 'immortal' J. West Goodwin, whose fad was running excursion trains to hangings, was at the height of its prosperity, and Ed Burrowes was Goodwin's chief cook and bottle-washer.

"He was managing editor, city editor, and hustler-in-chief. He was known all over the system, and when he felt like going on a whiz he would climb on a train and wind up at Galesburg, Illinois; Denison, Texas, or some other seaport.

"It made no difference whether he had any money, ticket, or pass. He had right-of-way over all Missouri Pacific rails. He was in close touch with the railroaders, and generally one of the leaders in any pranks that they might cut up.

"Merrifield was given a passenger run soon after the occurrence I am telling of, some five or six months later, having a run between Sedalia and Kansas City, and he was running there the last time I saw him; though after I left there and went to another part of the system I heard that Jim had been elected to the board of railroad commissioners of Missouri.

"He had acquired the nickname of 'Tornado Jim,' because one of these festive cyclones, that we used to think belonged exclusively to Kansas, had concluded there was no fun in chasing grasshoppers, and it raised up, crossed the Missouri River, and when it had got a few miles east of Kansas City it swooped down to earth to see what was doing.

"Jim's train was pulling along with some

thirty loads, and was possibly half-way between Sedalia and Lexington when the cyclone struck. Jim was seated in the look-out of the way-car. As it was a warm day, he was leaning out of the window, with his elbow on the deck, when he saw the storm coming.

"Now, Jim had never seen a cyclone, but when he saw that copper-colored cloud sweeping across the landscape, its tail twisting and turning like an elephant's trunk hunting peanuts, he did not need an expert to tell him what it was. So he crawled out through the window, and had just got out on the running-board, when there was something doing.

"The playful zephyr picked up the big mogul and stood it on its nose in a ditch. It scattered the box and flat cars promiscuously over the right-of-way. It lifted the caboose over a barbed-wire fence and gently deposited it in a corn-field. It picked Jim up bodily, carried him some distance, and dropped him in an osage orange hedge.

"Jim was not hurt, but he was pretty thoroughly disrobed, and his flesh was peppered with thorns from the hedge.

"Now, Blessington had a sister—a bright, winsome girl. Brown had been rather devoted to her, but none of the boys suspected that there was anything doing until, one evening when Jim came off his run, he was met by Burrowes, who told him that a marriage license had been issued to Jake Brown and Grace Blessington, and he presumed they were to be married that evening.

"Whether Jake feared to let the gang know what he was doing, dreading some of their practical jokes, or whether he had concluded that his marriage was none of the gang's business, the fact remains that few of the boys knew what was up.

"Jim had not forgotten the cyclone episode, and he passed the word among the boys that there would be something doing.

"An impromptu meeting was held at the roundhouse, and the best plan of playing a joke on Brown was discussed. All the engine crews and trainmen who were in town were corralled, and, at midnight, there was a mob of them at the roundhouse.

"The Blessington home was not far from the roundhouse, and, at three o'clock, the lights were all out except one in the second-story front room. The roundhouse foreman was in the play, so he sent the caller with a message to the house to call Jake to go east on second 23.

"The gang kept in the background, and as Jake opened the door, clad only in undershirt, trousers, and slippers, and signed the book, the gang made a rush and captured him.

"Near the roundhouse was an old monkey-cage that had been left by some circus. Into this they thrust Jake, securing the door firmly with a switch-padlock.

"When the whistle blew, at seven o'clock in the morning, a Pacific Express Company's wagon drove up to the roundhouse, and the driver asked the roundhouse foreman to sign the book receipting for one monkey in a cage. The foreman did so without a smile, and the cage, containing the unfortunate Brown, was lifted from the wagon and carried into the roundhouse.

"IT PICKED JIM UP BODILY AND DROPPED HIM IN A HEDGE."

"Here he was spied by all incoming and outgoing crews. They kept him there all day. Every man that came in brought a little bag of peanuts, until there must have been fully a peck in the cage. This, with water, was all Brown had to eat that day.

"Every man went through the usual performance of people before a monkey-cage, passing in peanuts and poking him up with a stick. For a while, the language that Brown used was red-hot, but he soon gave it up, and sat there, sullen and silent, chewing the bitter cud of his anger. The more he would storm, the more joy it was for the gang. All he could do was to sit there and plan how he could get even.

"In the meantime, the wives of the members of the gang were calling at the Blessington home, congratulating the bride and sympathizing with her on the cruel fate that had sent her husband out on an extra run the night of his wedding, but assuring her that it would not have occurred had he let them know that he was to be married, and if the roundhouse foreman had known this he would have sent somebody else out.

"Blessington had to sit there and listen to them, but all he could do was to grit his teeth and swear that he would get even. He did not dare to tell his sister of the trick that had been played.

"Brown was released at night. As he came out of the roundhouse, he was met by Blessington with the remainder of his clothes. Together they planned that Brown should not show up at the house until the following day, about the time that he was to have come in on 24, so that the bride should not know of the trick that had been played.

"Their precautions were of no avail, however. The gang saw to it that the bride should hear the full particulars, and when they finally showed up there was more trouble at the Blessington home.

"Blessington had fallen a victim to the Western fever, and for some time had been contemplating a change to the Far West. He had been promised a train on the Santa Fe extension, in New Mexico, and had only been waiting until his sister married when he intended to resign from the Missouri Pacific and, with his mother, depart for New Mexico.

"Brown decided that he would go with him, so, about a month or six weeks after the wedding, they called for their time, got their clearances, and left for the West.

"The gang was out in force, and gave them a royal send-off. When they finally got away, any feeling of animosity was entirely gone. But the die was cast, and though Brown was out of work and had a new wife to provide for, he was not uneasy. He was a good runner, and he did not doubt that he would soon get an engine.

"The party passed a couple of days in Kansas City, and the railroad boys there saw that they had a good time while in the metropolis of the Kaw. They stopped at Topeka, where Brown saw the master mechanic of the Santa Fe and had no trouble in getting an engine, especially as he was willing and anxious to go to the front. So, when they left Topeka on No. 1, Brown had a job as well as Blessington.

"Now, the construction gangs were being pushed for all that was in them. There was not much money available, for the road was new, and, as a result, the roadbed had to follow the ground pretty closely, and there were heavy grades and sharp curves. Grades could be cut down and the curvature reduced later on. The thing now was to get the road through and trains running.

"Blessington was given a run out of Las Vegas, and Brown was also assigned to the same division, so that it frequently happened Blessington had Brown to pull him. No regular passenger service had yet gone on this division, and passengers were carried in the way-cars. There was considerable local freight to be handled, and most of the tonnage was new material going to the frontier.

"The road crossed the divide at Glorietta Summit. The western slope was pretty steep, with several stiff curves. Some of the engines had air, but, at that time, few freight-cars had air-brakes. It required the best efforts of the three brakemen and the con, with the help of the air on the engine, to hold 'em.

"Brown was pulling thirty loads, bound west, and as he dropped over the summit, he shut her off and put on the air, but the brake was out of order, and the air failed to take hold.

"He then squealed for brakes, but the shacks had set every brake on the train. He saw that he could not hold 'em, and, as the train dropped over the hill, the momentum increased so rapidly that the engine was soon rocking like a ship at sea.

"A switch-cable and hook, carried on the pilot-beam, was thrown into the air, and caught the hand-rail on one side of the engine, tearing it away as one would snap a pipe-stem.

"Down they went, at the rate of a mile a minute. Brown realized that he had done all that he could, and that the only hope

"THE BOYS SWORE THAT HE MUST HAVE CLEARED SEVENTY-TWO FEET."

lay in getting off that engine before she turned over and pitched down the gorge.

"Brown got down on the tender-step, swung from the hand-rails for a moment, and then jumped. The boys swore that he must have cleared seventy-two feet, actual measurement, in that jump—but as it was on the side of a mountain, and he jumped downhill, there is nothing remarkable in that feat.

"The fireman hesitated until it was too late to jump. He had to stay. He opened the sand-box valve, but the pipes were clogged. He got out on the running-board, and poked away until the obstruction was removed and the sand running freely.

"Material Curve was short and steep. The outside was elevated for thirty miles an hour, so that when the engine struck it going at the rate of sixty, it was practically the same as a flat curve. The engine rode on the inner rail. For a moment, it was touch and go whether she would overbalance or hang to the rails. Fortunately, she came down all right and held the steel.

"While all this was happening, the brakemen were not having a picnic. Being on top, they got the full benefit of the swing and roll as the trucks struck the low joints and high centers.

"They were compelled to lie flat on the deck and hang on to the running-boards with all the grip of demons. There was nothing else to do. If the cars went into the ditch, they would have to go with them. All they could do was to stick to the running-boards and trust to luck to get clear when they went down.

"As the train dropped over the summit, Blessington, back in the caboose, knew there was something doing. Fortunately, the only passengers he had were Pawnee Charlie and his wife. He managed to pull the pin and cut loose from the train, and then found that he could hold the way-car under control with his brakes, while his train darted away down the mountain.

"He saw Brown as he dropped from the engine, and as the way-car whirled past the spot he noticed that Brown was still on his feet, and felt thankful that one man, at least, was safe. Blessington managed to hold the way-car under control, but he did not attempt to stop on the hill. That was impossible.

"With the usual stolidity of the Indian, Pawnee Charlie and his wife felt no concern. It did not occur to them that they were likely to find themselves in the happy hunting grounds in short order.

"For sixty miles, that train plunged down the slope, and though little more than an hour was occupied before it struck the three miles of level track below Cononcino, it seemed a lifetime to the crew.

"The grip of the brakes, which were still set, began to have an effect, and before the train had crossed the three-mile level she stopped.

"Ten gondola-cars next the engine were laden with steel rails and track fastenings. The stuff was scattered along the right-of-way just where it was not wanted.

"When Brown met Blessington, he told him that he believed he would much prefer playing monkey to attempting to hold thirty loads down Glorietta hill.

"If all stories are true, Jake had his troubles in the West. Running an engine in the mountains, with three-and-a-half per cent grades and sixteen-degree curves, was a vastly different matter from running an engine across a Missouri prairie between Sedalia and Kansas City, where anything over one-and-a-quarter per cent grade was terrifying.

"They say that it was some time before Brown would shut off in time on the summits, and let his engine drift—and he frequently dropped down a hill working steam, when he ought to have had her drifting.

"But Jakie soon caught on. At that time the demand for men was so great that experience in mountain-running was not asked about, and each newcomer had to learn the road as best he could.

"Get over the division any old way, but get over, was the rule. It not infrequently happened that men were sent out on an engine who had never seen the road beyond the outer switch-stands of the yard, and there was no time to give them a chance to learn it. But as the road was under construction, there was no necessity or demand for fast time, and there was no one to kick if trains only ran within rifle-shot of the time-card. A man could manage to bang along over the road, even though he did not know it.

"Now, if there is one thing that will make a general manager get up on his hind legs, paw the air, and howl, that is a succession of engine failures. It not infrequently hap-

"NEAR THE ROUNDHOUSE WAS AN OLD MONKEY-CAGE. INTO THIS THEY THRUST JAKE."

pens that these are caused by a lack of funds in the motive-power department, or the neglect of the purchasing agent to honor the requisitions of the master mechanic for the spares and supplies that should always be carried in every storeroom.

"One-half the engine failures are caused by the neglect to have some little thing on hand when needed. The poor engine-runner is called on the carpet for an engine failure that would not have occurred if some storekeeper or purchasing agent was not trying to make a great showing for economy.

"Jake was where he could not get supplies, and his engine would have only such care as he should give her with the help of the wipers.

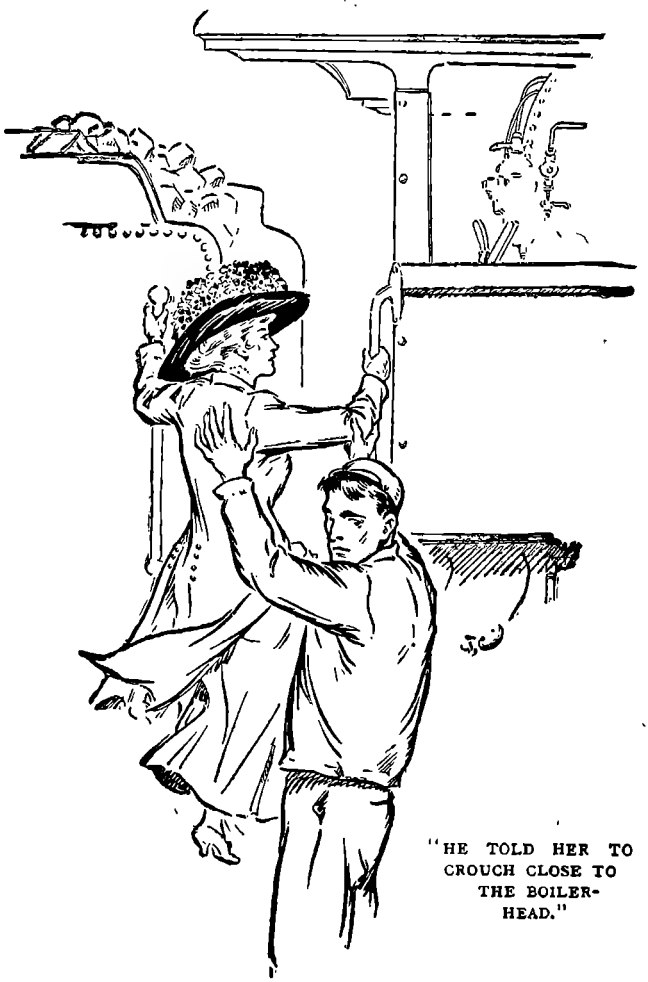
"He dropped over Glorietta Summit one day, with twenty-six loads behind him. About a third of the way down a road crossed the track after running alongside for half a mile, and then continued to follow the track down the mountain for a quarter of a mile farther. There was no excuse for the driver of a team, coming in either direction, failing to see an approaching train.

"As he dropped over the hill, he hooked her up and shut her off, working only steam enough to run the air. The brakies were all on top. His train was well under control, when a farm-wagon, containing a man and two women, came up the hill toward the train.

"Jake blew the usual whistle for the crossing, and did not dream that the fellow in the wagon would not stop. Instead the man drove deliberately onto the crossing. There was no time to swear at his stupidity. Jake grabbed the reverse and threw her over, gave her both sand-pipes, and opened the throttle.

"With the engine in the back motion, he hoped that he could check the train and avoid hitting the wagon.

"Instead, he blew out his left cylinder-head. He hit that wagon square in the center. The women, who were in the rear seat, were dumped on the right side of the track, and the driver on the left, while the wagon was thrown into a field. He knocked off the headlight, and jammed the stack back at an angle of forty-five degrees. And he did not check his speed!



"HE TOLD HER TO CROUCH CLOSE TO THE BOILER-HEAD."

"As Jake swept by, he leaned out of the cab window, cussing. The yokel sat where he had been dumped on the bank, with open mouth, staring at the train. When the way-car went by, Blessington threw a piece of coal at him.

"There was no stopping the train now. They had to keep moving. Motion is money in railroading, and, in this case, motion meant not only saving the lives of the crew, but avoiding a wreck also. So, down the hill they swept. Jake could only work one side now, and so long as they were on a three-per-cent grade, he had to keep going.

"They got the train in all right, but Jake got ten days for plugging his engine and blowing out a cylinder-head. The farmer and his women and the team were unhurt, but, of course, there was a damage-suit, and the company had to pay, though it was entirely the fault of the farmer."

"THE KNOT WAS SOON TIED."

"In the summer of 1880," said my pal, the old hogger, "there was a young engineer by the name of King on the Katy, pulling passenger between Sedalia and Parsons. He was a handsome young fellow, well set up, well-educated, and a gentleman.

"He was quite a favorite in Sedalia, and had a tenor voice which was fairly well trained. He formed the acquaintance of the daughter of a wealthy business man, and, in the course of time, they fell in love.

"The young couple were admirably suited, and finally King managed to pluck up sufficient courage to pop the question. He was accepted. For a time all went smoothly. The young man was a frequent guest at the young lady's home, and, so far as he could see, was not objectionable to the old gentleman. In the course of human events, it became necessary for King to ask the old gentleman's consent.

"Then there was trouble. Father told King that while he had no objections to him as a man, he had other plans for his daughter. He would not allow her to marry a greasy engineer.

"He ended by strictly forbidding the young couple to see or speak to each other.

"This was the worst thing the old man could have done. The daughter was a chip off the old block, and just as determined and headstrong.

"It was not long until the old man found that the lovers were frequently in each other's company, and he determined to send the girl to an aunt in Cincinnati.

"Both were well acquainted with a young woman, the society editor of the *Bazoo*, and, through her, they established a means of communication. The fact that she was to be sent to Cincinnati was duly communicated, and a plan was at once set on foot to circumvent it.

"At that time, Katy's No. 3 pulled in from Hannibal shortly after 11 P.M., and would meet the Missouri Pacific's No. 4 from Kansas City to St. Louis, No. 3 following No. 4 as far as the roundhouse, where 4 changed engines for St. Louis and 3 for Parsons.

"The plan was that the young lady should have her Pullman reserved on No. 4 for St. Louis and board the sleeper at the depot, where all her friends would bid her good-by.

"The society editor, of course, was in the crowd, but claimed to be going as far as Jefferson City. So, when the train pulled out, the two girls went into the chair-car. The society editor, having only a couple of hours' ride, was not taking a berth.

"When No. 4 reached the roundhouse, there was none of the young lady's friends on board, so she quietly dropped off the steps of the chair-car opposite the roundhouse and hurried around to the Katy tracks to the south.

"Here she found King's engine standing on the house-track, waiting to back down and couple on to No. 3.

"He was watching, and as the dark form of the girl glided around the back of the roundhouse and came up on the right side of his engine, he leaped to the ground and lifted her into the gangway.

"He told her to crouch down on the deck, close to the boiler-head, where none of the railroad men would notice her. The fireman stood in the left gangway, so that any one glancing into the cab would not see the crouching figure.

"King did not draw a full breath until his engine had coupled on, and the con gave him the light. He pulled the throttle; and as soon as the train was clear of the leads, and swinging into her stride for the run, he got down and assisted the girl to the fireman's seat.

"He made her as comfortable as possible for the long night-ride from Sedalia to Parsons. The only danger was that the con might come ahead and see the girl, and King did not want her to be seen by any of the crew except the fireman.

"But King did not know that the society editor of the *Bazoo* was on the train, or that she had miraculously received orders at the last minute to go to Parsons, instead of Jefferson City.

"She knew the conductor personally, and after he had worked his train he came back and sat down beside her for a little chat. She informed him that her friend was on the engine, and that she was eloping with the engineer. King, she said, did not want any one to see her, so that, if the old man used his power with the railroad officials, the crew could plead innocence.

"The con was in the play in a moment, and he arranged that, when they stopped at Clinton, the *Bazoo* girl should go ahead to the engine and tell King that, wherever it was necessary for orders to be handed him, he should turn the engine over to the fireman and drop off as the engine passed the depot, so that the con would not have to go forward.

"At Clinton the *Bazoo* woman went ahead as agreed, and King felt easier.

"At Nevada the division superintendent came ahead to the engine and talked a few minutes with King, whose heart was in his throat lest the super should take it into his head to ride on the engine.

"Just before they reached Fort Scott, he had the girl don a jumper, and jammed a cap down close over her short, curly hair.

"It seemed a whole year before they got away from Fort Scott, though they stopped only six minutes. From Fort Scott to Parsons it was plain sailing.

"As the sun rose over the prairie he glanced across at his sweetheart to see how she was holding up under the long, hard ride to one unaccustomed to the motion of an engine. But her eyes were bright, her color was good, and there was no trace of fatigue as she answered him with a smile.

"Just as he pulled into Parsons he noticed a hack drive up close to the left side of the track. He saw the *Bazoo* baby drop down from the front platform of the smoker and run ahead. By the time the train had stopped she was even with the cab. She told him there would be a conveyance waiting for him at the roundhouse, that the driver had instructions where to drive them, and then she dodged around the nose of the pilot and was just in time to help her friend down from the engine and into the waiting hack.

King's engine was cut off, and he pulled down and let in the other engine that was to pull the train from Parsons to South McAllister.

"He had to stand on the siding until No. 3 pulled out, and as he started to pull down to the siding, the editor of the *Sun,* who had been let into the secret, climbed into the cab, saying that he would ride to the roundhouse.

"Now, King wished that editor anywhere else than in his cab just then, but he felt that it would not do to offend him. As he jumped down to look over his engine the editor followed him, and told him that he had a cab waiting for him at the roundhouse, and that the girls had already driven to the parsonage.

"King grasped his hand and thanked him warmly. The two men climbed back into the cab; and No. 3 having pulled out, they backed down to the roundhouse. Without waiting to remove overalls and jumper, King, the fireman, and the newspaper man entered the hack and were whirled away.

"The knot was soon tied.

"A quick drive to the depot, a wire to papa saying that his daughter was now Mrs. King, and then the honeymoon."

COFFIN VARNISH.

BY CY WARMAN.

There Was Trouble, and Then More Trouble, and There Was Only One Cause for It All.

NO. 7, the Salt Lake Limited, used to chase No. 21, the fast freight, into Salida, as a terrier chases a tomcat into the kitchen. If 21 was ten minutes late, she had to pull right into the yards, but if she arrived sharp at 4.15, the road engines would cut off at the coal-chutes, pull up and back in on the house track.

That gave the yard engine ten minutes to pull the freight in to clear the main line, allowing five minutes for variations, clearing the line for 7, due at 4.30.

Now, if you have never done one hundred and twenty miles on an alkali division in summer, you will say it's a small thing to scrap about. Why don't you pull on up into the yard?

That's all very fine, but just pulling up isn't all. The limited follows you in. The road forks here. The limited has to be cut and shifted into two sections—one for Leadville and the other over Marshall Pass to Salt Lake; for this thing happened when what is now the main line ended at Leadville.

It was summer in Salida. Johnny Hill and Johnny Carr came in on 21—double-heading. They were on time. The 217 and the 222, respectively, were the Grants, handled by these energetic space-eaters. Hill was ahead, and when the 217 was opposite the switch he hooked her over. The head brakeman pulled the pin behind the second engine.

All this time Killeen, the yardmaster, was giving frantic signals for the double-header to hoist the train up into the yard. Hill didn't appear to see these signals. When the yardmaster saw that the brakeman was cutting off, he jumped on the foot-board and told the driver of the 106 (that was the goat) to back up.

Just as Hill and Carr got their engines into the forward motion, the goat jumped onto the frog and blocked the switch.

The yardmaster — whose word is law in the yard limits—ordered them to back up, couple on, and pull the train. Hill asked him where the yardmen were. Killeen intimated that *that* was his business.

"Bet four dollars they're over at McGuire's gin-mill."

"That's *their* business—back up."

"Have they any other business?" Hill asked.

Killeen knew that old Tom Andrews was on No. 7, and as he looked at his big watch she blew. The rear brakeman had gone back, and, a second later, they heard Tom answer his signal.

"*Now* will you back up? You still have two minutes to save your job."

All three of the engines were blowing off. Hill beckoned Killeen up under the cab window and told him to ask Carr. As Killeen went back, Hill's fireman dropped off, and picked up the pilot-bar of the 217. As he did so, Hill pushed forward, and, before the yard engineer knew what had happened, they were all coupled up.

Hill whistled Carr ahead, and then began a tug of war that resembled a fight between bulls.

If the goat had been on her guard she could have backed them up, but they got her going. All three were wide open, spitting fire and grinding sand. The air was blue with smoke and full of a smell like brimstone.

The goat screamed down brakes, but the two Grants, eager to get to the turntable, to turn and head for home, would not down.

At the water-tank, where the rail was wet, both the Grants blew up, and before they could get sand to them, the yard engine started them back.

The racket created by the three engines brought Carl Ridgway, chief clerk in the office of his father, the superintendent, bare-headed, to see what was happening.

Jones, the master mechanic, rushed from his office, and De Remer, the foreman, from the roundhouse.

The yardmaster and the head brakeman on the freight were scrapping for the possession of the switch. There was such a rain of fire from the three stacks that nobody seemed to care to rush in and pry them apart.

Without taking time to hear the case the motive-power officials were inclined to sympathize with the road engineers, while young Ridgway leaned toward the yard crew.

While they scrapped, old Tom, back on 177, swore audibly, while traveling men, who knew the road, left the train and hurried up to the hotel to supper.

It was smooth sledding for the goat until *she* struck the wet rail. By this time, the road engines were on dry sand. One more run and they shot the goat over to switch. The brakeman and the yardmaster were still struggling for the switch when Carr's fireman threw it over and the two Grants backed into clear.

When the officials had succeeded in pulling Killeen from the brakeman, the goat backed down, coupled on, and took the freight in off the main line; No. 7 pulled up to the station fifteen minutes late.

Hill and Carr were in bad.

The law of the rail is to obey orders on the road and kick after.

The conductor of No. 7 was first to report. Cause of delay: "Line blocked by twenty-one."

Despatcher to Hill: "Matter at Salida?"

Hill: "Yard crew."

Despatcher: "Matter with yard crew?"

Hill: "Coffin varnish."

The yard crew, save Killeen, were still lopping up intoxicants at McGuire's, along whose front porch lay the lead of the yard tracks. Killeen, with an eye in mourning, had to make up the two sections of No. 7, one for the third, the other for the fourth, division, getting them out thirty minutes late.

Meanwhile, Hill and Carr received orders, while their engines were being turned, and were now screaming down the Grand Cañon of the Arkansas for Pueblo, wondering what they would do to kill time for the next thirty days.

When the two sections of 7 and three sections of 21 had departed—the last section an hour and forty minutes late—Killeen went over to McGuire's to round up his Indians.

As the evening was young, some of them objected to the yardmaster's interference, and, eventually, they started a row among themselves. One fellow found a gun and chased the yardmaster across the track as No. 8 was coming in from Leadville.

Just here, John Hill's good fortune, which has chased him through forty-five years, turned up. Mr. Kelker, the master mechanic to whom Hill and Carr would have to explain on the morrow, was in the east sleeper —just going to bed.

Before the train had stopped at the station there was a loud report outside and a bullet smashed through the window immediately over the master mechanic's bed, ripped through the curtains, crashed out through another window and sped on its way.

Hill and Carr were not called to go out the following afternoon. They were called to go *in* and see the master mechanic.

They went. The Old Man had all the papers in the case before him. Hill recognized his wire of the previous night to the train-master. The master mechanic asked:

"What was the trouble out at Salida?"

Hill: "The yard crew."

Master Mechanic: "There was some excitement when 8 came through."

Hill: "Yes. That was Rough Neck Ryan shootin' at Killeen."

Master Mechanic: "What made him want to kill Killeen?"

Hill: "Same thing that made all the trouble, Mr. Kelker—coffin varnish."

A green fireman can pull out with a popping valve on the hardest division, but pulling in tells the story. A good ending beats a good start.—Reflections of a Tallow Pot.

THE MAN WHO WASN'T GAME.

BY WILLIAM S. WRIGHT.

I Make a Man Pay for Taking a Life, Even at the Risk of My Own.

SYNOPSIS OF PREVIOUS CHAPTERS.

JOHN ANDERSON, at the age of thirty, down and out, relates his experiences and hardships. At the age of twenty-one, resenting a reprimand from his father, he ran away from his home, taking with him twenty dollars which he had received from his mother to make some purchases in a near-by town. Arriving at the city at night he lands in a miserable hotel, where he pays ten cents for a bed. Here he meets a man calling himself Billy Brown, who immediately adopts him as a pal, taking him to breakfast the next morning and telling him he can put him next to a good job in the evening. Billy is recognized on the street by some detectives as Red Pete, wanted for a bank robbery, and in the succeeding chase he is shot. John Anderson is arrested as his accomplice. On the avowal of Red Pete that he is not his pal, Anderson is released the next day, but notified to leave town within twenty-four hours. Concealing himself under a seat of a passenger-train, he rides to a small town in western Nebraska. On being discovered by the conductor, he is put off, after receiving harsh treatment at the hands of some of the passengers. Here he is arrested as a tramp by the town marshal, but is speedily freed by the squire, who generously gives him ten dollars, recommending him to go to the village hotel for the night. He is grudgingly given a room, and during the night is awakened by a hand at his throat. A robber, who had witnessed the changing of the squire's bill at the desk that evening, has entered his room. The robber escapes and our hero is again penniless. The owner of the hotel befriends him, giving him a job in his kitchen, where he stays until he has sufficient money to take him to San Francisco. After several days' fruitless search for work, he finally lands a job in a stable, but early one morning is shanghaied and finds himself in the hold of a ship outward-bound.

CHAPTER VI.

A Life on the Ocean Wave.

THE ship that I was on—against my wishes—was the Molly O. Malone, a brigantine of some two hundred tons' burden. I learned, in the most startling manner, that she was bound from San Francisco to a port in China, where she would load coolies and then sail for a port in the South Sea Islands, where the coolies would be sold to a wealthy planter, who had planned this particular expedition because he was looking for cheap labor.

When I awoke in the morning, a big Swede, who, I afterward learned, was the second mate of the ship, told me to go to the fo'c's'le and "get some grub."

There were six other men in there—all big, husky fellows save one. This particular one was a weak and puny lad. He could not have been more than seventeen years old. He was crying bitterly, and it was evident that he was refusing to eat.

"Hallo, Jack," said one of the men cheerily. He did not know that my first name was "Jack." He merely addressed me by the term that is applied to all landlubbers when they ship before the mast, either against their will or not.

"Where did you come from?" asked a second.

"Shanghaied lubber," quoth a third. And realizing that the worst thing that I could do would be to show that I was displeased with my surroundings, I smiled cheerily and said:

"Yes, I'm a shanghaied landlubber. But I've got two strong hands, and I'm not afraid of work—or anything else," I added for good measure.

The men were all eating. On the rough table around which they sat was a huge tin kettle of rather savory coffee, a large loaf of doughy bread, and a mess of some sort of

Began in the July Railroad Man's Magazine. Single copies, 10 cents.

meat and potatoes cooked together. A large white pitcher was filled with water.

This mess was placed in the center of the table, and each man dipped into it at pleasure. Hands, forks, and spoons were used with equal facility.

Hunger had hold of me, and it all tasted good. I must admit that I ate with a relish that must have puzzled my companions of the deep. But I noticed that the weak lad's plate was empty, and that his sobbing was pitiful to hear.

"You're not much like your pal there," said one of the men, addressing me and pointing to the youngster.

"Cheer up there, sonny!" yelled one of the men. "We ain't goin' to hurt ye."

But the poor fellow only cried all the harder. He actually wept as if his heart was breaking—and it was. Only once during his sobbing I heard him speak. Then he said:

"I want—to—go—home!"

Then it dawned on me that, like myself, he had been kidnaped.

The sailors jeered him roundly, but I said nothing. In my heart, I felt sorry for him.

I could understand how they could steal a big, husky fellow like myself, but why they should want a poor little waif like him was beyond me.

One by one the sailors finished their breakfast and filed out. We two were left alone.

I went over to the poor fellow and tried to comfort him. He told me that he had been walking along the water-front of San Francisco with his father, looking at the shipping, when, in some way or other, he and his father had become separated.

He suddenly felt a hand clapped over his mouth, and, before he was aware, three men had bundled him into a hack, which was rapidly driven away.

One of the men pulled a revolver and ordered him to keep quiet. He began to cry, he told me, and, fearing that he would make a noise and thwart their plans, they put a gag in his mouth.

The next thing he knew he was in the hold of the ship. He had not eaten anything since he was taken aboard. His condition was pitiful. When he finished his story he began crying again, and he moaned and cried until his poor little frame shook with grief.

I tried to comfort him by telling him that the men would not hurt him, and that we two would stick together. Whether or not he believed that I, like himself, was a "sniveler," the sailors' term for the shanghaied man, I do not know.

He did not seem to trust me, somehow or other, and just as I was about to convince him further—for I wanted him to know that I was his friend—the big Swede stuck his head in the fo'c's'le door and swore at us.

"Get out o' here, and get to work!" he yelled.

I left the boy and went out on deck. I found there two big stones that looked very much like hard pieces of sandstone, and shaped about the size of an ordinary cobble.

They were placed beside two buckets of water.

"Get down and scrub," said the Swede, pointing to one of them.

I dropped on my hands and knees, and he did also, but only for the purpose of showing me.

He sprinkled a little water on the deck, and then, taking the stone in both hands, proceeded to rub it over the wet place until it shone with cleanliness.

This interesting pastime is called "holystoning," and when it is kept up for several hours under a blistering sun one wishes that he were on a torture-rack.

The Swede stood over me for several minutes to see how I progressed. "Harder! Harder!" he yelled, prodding me in the ribs with his boot.

I bent over it with a will. I could feel the sun on my back, but, keener still, I could feel the piercing eyes of that giant Swede. Finally, he was satisfied that I was doing my best, and he turned from me, saying:

"You do the port side."

It was evident that the other bucket and the other "holystone" were for the unfortunate youngster who was still crying his eyes out in the fo'c's'le. The Swede mate looked around, and perceiving that he was not on deck—that he had failed to obey orders—he went forward to get him.

Continuing my "holystoning," I turned so that I could see what would happen. I saw the big mate go to the fo'c's'le door. He cursed and called. Evidently the youngster did not reply, for the mate darted into the fo'c's'le, and the next thing that I saw, my kidnaped companion was being hurled to the deck by a force other than his own will. He sprawled along for ten feet.

He managed to find his feet. He stood there in the shade of the foreshrouds, the most wobegone object in all the world.

"Go aft!" shouted the mate, "and go to work!"

He made no reply. He could not. Again the mate ordered him to the holystone. Poor lad! I do believe that he made one feeble attempt to obey, but it was too feeble. His tears were blinding him.

That human brute rolled up his sleeve, drew back, and, with a force that would have felled an ox, struck the boy square in the jaw. He went down in a heap.

He lay very quiet—his face red from crying, his poor, weak hands clutched in what might have been the feeblest effort to defend himself. I stopped and looked up.

"Go on, or I'll give you the same!" yelled the Swede, looking at me, and accompanying his words with oaths.

I bent to my work. I didn't care to go up against that fist—not yet.

He kicked the boy lying on the deck. He swore at him, and cursed him. He turned him over on his back with the rough boots of him, and the lad's face looked motionless at the burning sun.

He picked him up as easily and as roughly as one would handle the carcass of a beef, and stood him on his feet.

But the boy could not stand. He fell motionless, forward. I surmised, by the peculiar, listless manner in which his hands hung by his side, that he was dead.

And I was right.

CHAPTER VII.

I Take the Aggressive.

FOR a second the Swede stood looking at the body of the boy whom a kindly death had saved from the worst torture a man can know—a life on a slave-ship. Then he ran aft and down the companionway to the captain's cabin.

In a few moments he returned. The captain followed. I kept on with my scrubbing, and cold chills ran along my spine. My brow was covered with sweat.

The captain looked at the body a moment, leaned over it, and put his hand on the spot under which the heart once beat.

He was convinced, without further parley, that his mate was a murderer, and ordered the body consigned to the deep.

"Lend a hand here!" yelled the mate.

At first, I did not know that he referred to me. But he stared at me, and repeated his orders. Then he called to the man at the wheel.

We were going before a calm wind, and so the helmsman had only to lash the wheel with a piece of line kept on deck for that purpose and come forward.

I left my holystone and stood beside the corpse, awaiting further orders. The murderous mate went to the fo'c's'le-deck, and returned with three long marlinespikes and some rope.

"Lash him to these!" he ordered, as he threw them to the deck.

The sailor and I bent over. He knew what to do—I didn't. But I blindly followed him, and, in a few moments, we had tied the marlinespikes to the dead boy's legs.

"Now, heave him over!" ordered the mate.

The sailor took him by the feet, and I put my hands under his head. My heart was going like a trip-hammer. I wanted to show him some human respect—I wanted to be as gentle as possible; but the mate's "Hurry, there!" indicated that the Molly O. Malone was no boat for sentiment when it came to burying her dead.

We lifted the body to the taffrail and tipped it into the sea. The heavy spikes carried it from sight.

The helmsman returned to his wheel. The Swede returned to his brutality. I returned to my "holystoning," and—I must confess—a few of my tears mingled with the water and the stone to make the deck more white.

We sailed on, the hot sun still beating down on my aching back; but the deck was getting whiter and whiter as I plied my muscles to the stone. It was a digression, anyhow; and, while I was toiling, I thought of that poor lad sinking to his grave in the deep, of his parents, of the awful murderous mate that might end my life in the same manner if I thwarted him.

And, while these thoughts ran through my mind, I resolved that the death of that boy would be revenged in some way or other.

I was born with a sort of fighting mania. It is a mania that is kindled whenever I see any one getting the worst of it. It is the feeling for the underdog.

Many of us have it. Whatever it is born of I do not know, but it is certain to rankle in the breast of the man who has the blood of sympathy in his veins. I believe such men are really human.

The more I thought, the more I wanted to get at that Swede; and I believe that if he had crossed my path at a certain moment that day, I would have picked up the first thing handy and let him feel my wrath.

But as the moments wore away, I looked at the situation more coolly. I would have

my revenge, but it should come at a time when I would not get the worst of the battle.

CHAPTER VIII.

I Try to Make Good.

WE sailed on and on with the monotonous precision of day unto day. The good ship behaved herself well, the weather held fair, the wind remained steady but not strong, and the men, including myself, were now in the regular routine of their work.

The Swede mate said nothing to me, for I did my work—always the dirtiest about the ship—without a qualm.

Perhaps he felt that I had learned a good lesson from the unfortunate lad, and—well, perhaps I had.

There was one thing—he could not kill me with work. I was equal to any task he ordered done.

Work never had horrors for me, because I always looked on the bright side of it, and went at it with a sense of pleasure. On the other hand, nature had blessed me with one of those bodies that can stand any kind of wear and tear.

I began to know the sailors, and found them all friendly. I was finally assigned regularly to the second mate's watch, which comprised four others besides myself.

One was a tall, thin man from San José, California, whom we called Charlie. Another was an Italian who had deserted from a war-ship of his country, and who was known as Tony; and the other two were long-mustached A.B's. of the Captain Kidd type that I used to read about in story-books.

Our lives, however, were anything but story-book lives. If there was any glamour or romance on that lime-juicer, it must have been in pickle. None ever told a story, none ever sang a song, none ever related daring escapades with pirates on the high seas.

We were just an ordinary, hard-working crowd, with a sort of kindly bearing toward one another. We had but little to say, as I have indicated; but we never spoke of two things in particular.

One was the death of our unknown companion; the other was the destination of the Molly O. Malone.

Just why this second query seemed unanswerable I do not know. None of the crew, aside from me, seemed to care. I was on the alert, however; but every man I asked set the answer aside as if it were of little or no importance.

One night, while I was seated on a coil of rope on top of the forward hatch, I received an unusual shock.

The Swede mate approached me, and really spoke to me in a pleasant manner.

I had been given to understand that it was far from ship etiquette for a mate to speak in friendly fashion to any of his men, but this man—whom I hated from his head to his feet without reserve and in a manner that left no opening for anything but hatred—had actually come up to me, and was speaking to me in a kindly tone of voice.

"Well, how do you like it?" he asked, drawing a long whiff of smoke from his pipe.

"I'm getting used to it," I replied. "I find the work pretty hard, but—"

"Have you ever been to sea before?" he asked, twisting the words to suit his foreign method of expression.

"No," I replied.

"You'd make a pretty good sailor. Do you like the sea?"

Then I replied:

"I have not been to sea long enough; but there is something about the life that appeals to me. I think that I might like it if I were on a different sort of ship."

I had hopes that this might anger him. I wouldn't have cared if he had landed on me then just as he had landed on the unfortunate boy. I was ready for him.

But, instead, he only smiled. His great hams of fists hung listlessly at his side. I dropped my eyes for a moment to take them in.

What a chance for a heavy-weight pugilist, thought I. Six feet tall and over; shoulders like the back of a cab; arms that hung almost to his knees, and those mighty hands! Added to these fighting qualities, he had the thin hips of the ancient warrior, and an intelligence which would have stood him in good stead.

He only smiled.

"This is a good ship," he said. "We are on a splendid journey. The men will have the very best of treatment, if they will only do as I say."

"What do we get paid?" I asked.

"That depends on what we do after we leave China."

"Are we bound for China?" was my next question.

"Yes," he replied; "we go there for Chinese laborers. There's big money in it. We kidnap 'em; then we take them down to the South Sea Islands, or to South America,

where we sell them to the planters who want good labor for little money.

"Now, I've been watching you, boy," he went on, speaking more kindly than I believed he could speak; "and you're the kind that knows how to work. Besides, you are not the ordinary sailor. You've had education. I can tell that by the way you mind your business."

To be sure, he was trying to lure me into his vile business of slave-trading.

My first impulse was to reach for the nearest spike and let him have it full on the head—but that would have been foolish.

He would have had the best of me; for, even if I had felled him, he would have called the other men to his assistance, and I would have been put in irons or shot—and I did not want either.

"I will play with this gay lad," said I to myself. "'Tis a long journey that I have before me, and when the hospitable coast of China looms up on the bow, then he and I will have our little say. Meantime I will be diplomatic, and I will even become a slave-trader if it will please him."

The days wore on, and the ever-varying life of the sea charmed me.

I began to like it. There was something spirited in the life. There was the risk and the danger which I liked; and when we sped before the wind, or reefed sail in a squall, I loved the sensation. It was so real—so exhilarating!

The Swede and I became good friends—at least so he thought. I had promised to give him my answer about joining his slave-trading gang when we reached China.

He never pressed me to decide against my will, but he continually persuaded me to do so.

Not once on the long journey did he ever refer to the young man whom he had killed. Not once did he even hint that the boy had been aboard. One night I made up my mind that I would speak to him about it; but, on debating it in my mind, I decided that I had better wait.

As we approached the Orient, uncertain winds carried us toward the south; and one morning, just after dawn, the man at the bow sang out, "Land ho!"

He was pointing over the starboard bow, and there, in the dim haze, we could outline a mountainous land.

It was the first time that I had ever seen land from the sea—and it was a strange sensation. At first I thought that it was a cloud hanging low on the horizon, and my childish and repeated "Where! Where! Where!" must have startled the other sailors to laughter.

As the day wore on, it loomed larger and larger ahead of us. We were making straight for it; and once I noticed the captain come on deck and "shoot the sun," only to nod to the mate that all was evidently well, and to keep her head into the wind.

I had learned to steer, and took my place at the wheel whenever my turn came, just the same as any of the able-bodied seamen.

It came between six and eight bells that night; and, as the moon shone bright and clear, the captain decided to keep before the wind until we got too close to the land ahead, when we would take a tack offshore. Of this I was not sure, but I imagined, from the little sea knowledge that I had gained, that this would be his idea.

The wind freshened toward ten o'clock, and the moon kept its vigil in a clear sky. The bell had just struck six times when I jumped from my bunk in the fo'c's'le, where I had been reading, and, clad only in overalls and shirt, walked aft to relieve the man who was then steering.

He stood aside to give me the spokes, and said, as he did so: "Keep her full."

This was his last order, and, of course, it had to be passed on to me.

I nodded, took the wheel, looked up at the topsails, which were bulging with the wind, and knew that I was on my course.

The land was now very close, perhaps only eight miles away; but it presented a grand and majestic sight in the moonlight. It seemed that the mighty mountains, rising out of the sea, were ready to topple over on us.

There was not a light visible—not even a beacon of the sea—and it seemed as if we were approaching some strange coast, some fairy-land not recorded on the maps, but which had come out of the sea like a mighty Titan to greet us.

As we drew nearer, I noticed a series of small, twinkling lights near the horizon. They looked like the lights of a small village, and, with malice aforethought, I brought the Molly O. Malone around so that she was heading straight in their direction.

I bared my breast to the cooling breeze from the shore which now reached us. I noticed that it was redolent with the odor of spices and strange woods that carried the tang of encouragement into my veins, heightening the plan that was rapidly forming in my mind.

The Swede came out of the fo'c's'le,

looked at the stars, then at the land ahead, and came aft.

The instant that he caught sight of the lights on shore he yelled to me:

"Port! Hard a port!"

I brought her around as quickly as possible.

"Keep her off," he said. "Why didn't you let me know that we were so close? Keep her off!"

I did not reply, and he went below. When he was out of sight I let her come back to starboard so slowly—oh, so slowly!—that he did not notice it. I estimated that we must have been about five miles offshore, and my plan was to keep her about that distance until I could carry out my program.

The wind was dying, and the water was calm. Save for the lapping of the waves against the vessel's prow, I could not hear a sound.

We were hardly making five knots an hour, when the wind died altogether. The sails were soon flapping idly, and then came that monotonous noise of the lime-juicer, the bumping of the staysail block on the deck as the sail tried to pick up each vagrant gust.

This noise brought the Swede mate to the deck again. It told him that all was not just right. He looked about for a second, and then came aft to the wheel where I was standing.

"Didn't I tell you to keep 'er off?" he yelled.

I simply nodded my head.

"Then why didn't you—" He uttered an oath.

"Because I didn't want to," I replied, without a gleam of excitement.

My moment had come.

Now was the time for him to pay for killing that poor lad whom his men had shanghaied.

I slipped the lashing on the wheel-spokes, and, before he had time to realize what was happening, I fairly jumped at him with all the fury of a tiger.

My hands were around him, and I was choking him. I could hear the blood gurgling in his jugular vein, and, in the faint light, I could see his eyes bulging from his head.

Having made the attack, I had the advantage. I got as close to his hot and sweating body as possible, because, if I kept any distance from him, he would have been able to hit me.

Ere he was aware of it, I had forced him against the house. I bent him back until his spine must have cracked, and, with my hands still on his throat, I thrust my knee into his stomach.

"Now, you dog!" I said. "I'm going to make you pay for killing that boy!"

Just to rub it in good, I cursed with unwonted enthusiasm, and heaped the contumely of contempt on him in words that expressed my feelings beyond a doubt. But he was slowly getting the use of his hands. Those giant members were gradually getting a grasp on my body, and it was time to act.

Tightening my grip on his throat, I lunged him to one side, tripped him, and hurled him against the taffrail.

Before he could regain his feet I had pulled a marlinespike from its socket. He made for me, but I did not spare him.

The marlinespike crashed into his head, and he went down into the lee scuppers like a fallen beef.

I thought that I had stunned him, but he was up and ready for a new attack; and perhaps the only thing that prevented me from finishing him was the fact that he yelled for help.

My plan was to beat him into unconsciousness, jump overboard, and swim ashore.

I was obliged to jump sooner than I expected, however, for the captain came up the aft companionway, and the first mate, with whom he had been playing cards in the cabin, appeared at the forward way.

I saw a glimmering pistol in the hands of each.

I knew that my life was not worth more than the first shot that would be fired. Rushing at the Swede, I landed a crashing blow on his head for good measure. I saw him go down again as I nimbly leaped the taffrail and shot into the water.

I struck out for the shore. Looking over my shoulder, I saw the captain and the mate start the foolish scheme of shooting into the water. I had only to surmise when they might pull their triggers and then let myself sink. When the bullet struck the water, its impetus was broken and its course deflected. They couldn't possibly harm me.

Once or twice I heard the bullets go *ping* as they struck the water close to me, but I kept on—each stroke bringing me closer to the shore.

I knew that I had the swim of my life ahead of me, but my plan was to get out of range of the bullets and then swim easily so as not to exert myself.

Finally the shooting stopped. I turned in

the water, and could see that the Molly O. Malone was pointing her nose outward. It was evident that her skipper had decided to take no risk in coming closer. I surmised that he might have hove-to until morning, so that he could get his bearings and make port, but she seemed to have caught a land breeze, and, leaning over in the moonlight and making headway, she was a picture that I shall never forget.

I struck out boldly for the shore, but a strong current seemed to be forcing me back. It was a powerful current, too; but I was game. Once or twice I became somewhat exhausted, but, for relief, I would turn on my back and float for a moment.

However, I knew that this sort of thing only retarded my progress, and my rests were not for long. I kept on and on.

Now and then I felt a peculiar numbness in one of my legs; now and then some of my muscles seemed to be getting useless. Now and then the shore and the lights seemed to go farther than come nearer, and the great ocean that lined up in front of me seemed a turbulent barrier which no human being could cross.

But I kept on—slowly and mechanically. My mind was ever on my goal. I kept saying to myself: "You must make it! You must make it!" and I smiled as I said it, and this seemed to give more strength and more courage.

I can never write just what sort of feeling possessed me, when suddenly a stretch of beach—white and sandy—appeared before me. It looked like the snowy beach of a fairy-land. Now, I could hear the water lapping the shore. Now, I put one foot down to see if I could stand.

My foot touched a sandy bottom. I thanked my stars. Fate was indeed good to me. I waded in, step by step, and at length I stood on the beach. Something reeled in my brain. The exhaustion was beginning to tell. I sank to the ground. It was soft and welcome. Wet as I was, I fell asleep.

CHAPTER IX.

The Village in the Distance.

THERE I was—a modern *Robinson Crusoe* on his tiny isle. When I awoke the sun was just breaking through the east in a radiance of opal glory. Its shafts flung high to the heavens in golden majesty. I arose stiff and sore, but thoroughly rested, and took in my situation.

I was on an island about a mile from the mainland—if a small protuberance on a coral reef could be called an island. I could see the white, thatched houses nestling on the shore, and I could also see some natives, clad only in waist-cloths, walking to and fro.

I was thirsty. My mouth and tongue were swelling for want of water. My first intention was to hunt for fresh water on my island, but a hasty survey told me that it would be futile.

I was on the tiniest of atolls, and the water in the center was so brackish that it was undrinkable.

Putting my hands to my mouth, I tried to yell; but my voice was harsh and sluggish, and did not reach to the other shore. I took off my shirt and, running close to the water, waved it.

I had not done this for more than a few moments when I noticed a commotion on the mainland. Several natives had come down to the water's edge and were gesticulating wildly. Others followed them. Soon the beach was covered with them—and then a canoe was put out from the heavy trees, four men jumped in, and they were soon paddling in my direction.

As they came nearer and nearer I could see that they were very black. One, in particular, wore his hair high in some fantastic dress, and was talking with more vehemence than the others, pointing at me all the while.

They came closer. I did not like their looks. I turned and looked out to sea—just why I do not know. The Molly O. Malone was nowhere in sight.

I turned toward the land again. The natives were now close to the atoll, and were eying me curiously. Presently they beached their canoe. They approached me with some hesitancy. Two of them, I noticed, carried some kind of death-dealing clubs.

They walked toward me, and I smiled and tried to show that I was friendly, and said "Good morning," in English — which language they evidently did not understand.

They jabbered in their lingo, but I could not understand them. I pointed to my mouth, and made other pantomimic signals for a drink of water.

They motioned to their canoe, and I jumped into it. The four pushed it into the water until it was well afloat, and then scrambled aboard and plied the paddles.

On the way to the mainland they kept up a constant talking. They seemed to be in a wordy fight about something.

The shore was now black with natives,

and they almost pushed one another into the water as the canoe was beached, and they almost crowded me to suffocation as I stepped ashore. I was very weak, and I sat on the ground.

I pointed to my swollen tongue and parched mouth. The leader of the quartet yelled "*Vera te papo! Vera te papo!*" with such vehemence that several dozen natives scrambled through the thick growth of trees and returned with a variety of vessels filled with clear, cool water.

It was high time that I had it, too. The fever was mounting to my temples, and I was beginning to choke.

I drank the water in great gulps. It permeated my system, and made me feel cool and strong. I sat there with that great crowd around me, seeming unable to get sufficient of the water—now drinking, now bathing my head and face. I threw it all over my body—it was so fresh and cooling—and some of the natives helped me out by throwing it on me from the vessels they carried.

In a short while the leader of my rescuing-party approached me. He was muttering something, and I could see that he was trying to make me understand. He motioned to me to rise. I did so, and he indicated that I was to go with him.

He led the way into the village, and I followed him—and behind me was a crowd of native men, women, and children, all talking and gesticulating about the strange visitor who had been cast upon their shore.

Presently my guide stopped in front of a low house, and bade me enter. He entered alone with me. I found myself in a clean room, furnished with a table and a chair made of the stout branches of a tree covered with the hide of some animal. On the floor was a mat and a pillow made of weeds. There was only one window, and that was very small and near the roof.

My friend or foe—I knew not which—after seeing me safely inside, closed the door and left me alone.

I heard the bolt clang, and I knew that I was locked in.

(To be continued.)

A CAR WITH A FIREPLACE.

A MAGNIFICENT private-car, said to be the most sumptuous railroad coach ever constructed, has been sent from England to South America for the use of the President of the Argentine Republic.

The coach is seventy-eight feet long and ten and a half feet wide, and is constructed of steel. The exterior is painted in cream, with gold and blue lining, the national Argentine colors. At one end is the president's day saloon, a compartment seventeen feet three inches long, decorated in the Louis XVI style, with green silk panels and carpet. At one end of this is a real fireplace with mirror above, and means for ventilation. The roof is tastefully carved.

Adjoining this compartment is a bedroom, also fitted with green carpet and upholstery, and furnished with a bedstead finished in old gold, with the Argentine coat of arms at the foot. The bedroom has three doors, one leading to the day saloon, one to the corridor, which runs along the side, and one to the bathroom. By locking any one of these doors, all become locked.

The bathroom is provided with a "needle bath," and is finished in marble with silver-plated fittings. The upper panels are of enameled metal, and the floor is artistically covered with india rubber and cork mats.

The next compartment is a study, or library, finished in mahogany, with red leather chairs and a red carpet, upholstered with French gray silk panels, the general scheme being white, with green leather chairs and carpets. These two rooms have one bathroom. A kitchen and attendants' compartment take up the remaining space in this traveling palace. —*Popular Mechanics.*

MOVING A VILLAGE BY RAIL.

A TRAINLOAD of miners' houses, a two-room cottage to each car, was recently made up at a way station on the Weatherford, Mineral Wells, and Northwestern Railway, in Texas, and taken at a fifteen-mile clip to another and better mining site along the line.

Each room in these cottages was twelve feet by fourteen feet, with nine-foot ceilings, and, as mounted on the cars, the comb of the roof stood fifteen feet and four inches above the rails. At this speed of fifteen miles an hour a number of six per cent curves were negotiated, where the outer rail was elevated four inches. The journey was successful in every way.

It is not stated whether the houses were stripped of furniture or that the domestic economy of the households was interrupted during the trip.—*Chicago Tribune.*

Pinkerton Days on the Lake Shore.

BY JOHN H. PAINE.

Some Pioneer Railroad Work of the Famous American Detective Which Resulted in Putting Behind the Bars Some Clever Criminals Who Had Long Defied the Police.

THE general manager of the Lake Shore Railroad was sitting in his office studying the report of a division superintendent on the latest of a series of disastrous wrecks which had occurred in the neighborhood of Chicago. That was forty years ago. The general manager was sorely troubled. Not only had the wrecks cost the railroad thousands of dollars in damages, but the officials had been unable to find any explanation for them.

It had been supposed that the accidents were due to defects in the road-bed, but their frequency, coupled with the fact that they had all occurred on the same division, pointed to train-wreckers.

Guards had been stationed along the division, but those who were perpetrating the outrages seemed to have an intimate knowledge of their movements, and the wrecks went on as before. The general manager, after going over the report of the last accident, failed to gather any suggestion from it as to the identity of the culprits, and he sent for the general counsel of the road.

"Cheesbrough," he said, when that official entered his office, "I'm stumped! I've exhausted all my resources, and I'm just as far from knowing how these trains are wrecked as I was at the beginning."

"If I were you," said Mr. Cheesbrough, "I would call on a man whom we have used in our office lately to run down some damage claims for us. He's bright, resourceful, and, I think, could solve the case for you."

The general manager sent word to the person thus recommended to come to his office, and the next morning he appeared.

"MARTIN'S SPEAK-EASY."

He was rather commonplace in appearance, somewhat short, with a round, expressionless face. His manner was quiet in the extreme. The general manager told him briefly of the wrecks, and explained the circumstances attending them. The other listened attentively, and then, putting on his hat, started to leave the office.

"Where are you going?" the general manager asked.

"I'm going to get your men," replied the visitor.

"But we haven't discussed the terms," said the general manager.

"Well, if I catch those train-wreckers, I shall expect the Lake Shore Railroad to pay me five thousand dollars," he replied. "If I don't catch them, I don't want a cent."

Three weeks after this interview the yardmaster of the Chicago yards called on the general manager.

"I wish you would see the city authorities, sir, and ask them to do away with a grogshop that's been opened right on the borders of the yards," he said. "It's a disreputable shanty, and the men are getting drunk there in droves."

On the Job.

The general manager made a note of the location of the place, and in a day or two strolled through the yards to investigate. He found a rough board shanty standing in the outskirts of the yards, with its entrance surrounded by a crowd of switchmen, car-couplers, and other employees of the road. He was very indignant and threw open the door of the shanty, intending to order the proprietor off the grounds. Behind the bar, however, to his great surprise, he saw the man he had interviewed but three weeks before in a dirty apron, with the sleeves of his flannel shirt rolled up, serving beer from a row of kegs behind a rough plank bar.

Speechless with amazement, the general manager gazed at him for a moment; and then, finding his look returned with a blank stare, totally devoid of any sign of recognition, he turned on his heel and left the place.

Soon he was in receipt of more complaints from subordinate officials of the road, telling of the demoralization wrought among their men by "Martin's Speak-Easy," as the shanty came to be known. The master mechanic said that men who had never been known to drink would now turn up at the roundhouse intoxicated, and the yardmaster attributed three or four bad smashups among the freight-trains to the evil influence of Martin's bar. Things went along in this way for several weeks, when one morning the general manager received this telegram:

> You owe me five thousand dollars. Your men are in jail in Elkhart. Please send counsel to prosecute.

The general manager was so interested in the case that he went with the counsel of the road to Elkhart the same day. There they found two switchmen who had been employed in the yards. The bartender met them at the station and told the story of how he had run down the wreckers.

Setting the Trap.

"At the very outset, everything pointed to its being the work of employees of the road. I thought at first of taking a job on the line and trying to pick up a clue in that way, but railroad men are always quick to recognize a spotter and wouldn't be apt to put confidence in a green hand anyhow.

"Bartenders, on the other hand, for some reason or other, seem to know everything that's going on, so I decided to open a saloon. I didn't have any luck at all the first week or so, and I was beginning to feel discouraged, when finally one night one of the two men I have in jail here came into the shanty about seven o'clock and asked if he might leave a couple of spike-draws behind the bar. He said the tool-house was locked but that he'd put them away later in the night. I felt pretty sure then that I had one of my men.

"I had an assistant in the shanty who was dressed up to represent a dirty, saloon loafer. As soon as the switchman, who had brought in the spike-draws, left, I told this man to get ready, and together we waited for the switchman to come back. He turned up about 11 o'clock and asked for the spike-draws. I gave them to him and he left the shanty. My man, Johnson, was lying on his stomach alongside the shanty on the watch.

On the Trail.

"As soon as the switchman came out he followed him. I stopped just long enough to take off my apron, and then hurried after them. I could see Johnson dodging along the railroad tracks, beside freight-cars through the yard and I followed him until we came to the outskirts of the yard where the tracks began to come together.

"Johnson stopped, and I came up with him. He pointed through the darkness ahead without speaking, and I could make out dimly the figure of another man talking to the switchman. The two lighted a lantern and then started ahead up the tracks. The lantern made it easy for us to follow them, so we let the men get some distance ahead in order to avoid any danger of alarming them.

"We must have trudged four miles out along the main line, when the lantern in front stopped. We were far behind, but we didn't dare come up with them at that point, the road being open and no means of concealment offered. We waited to see what would happen, and, after a few minutes, the lantern began to come toward us. Suddenly, as we watched, it disappeared. We decided to go ahead, and had walked about five minutes when we heard a freight-train coming over the tracks on which we were walking.

"HE QUARRELED WITH THE CONDUCTOR OVER PAYING HIS FARE."

"We were on a trestle over a short culvert and to save ourselves from being run over, jumped down into it. We lit on top of those switchmen, and for about ten minutes there was the liveliest fight you ever heard of. We had the advantage of being uppermost, however, and after a time managed to get handcuffs on them. Then all of a sudden it dawned on me what had happened.

The Capture.

"We found their lantern and lighted it and I sent Johnson tearing up the tracks to stop any train that might be coming down. He held up the mail train from Cleveland and I came along later with the two prisoners. About 300 feet from where he stopped the train, we found a section of track taken out. On the way back the two men confessed to us that they and two others, whom we will get to-morrow, had caused all the wrecks."

The proprietor of "Martin's Speak-Easy" was Allan Pinkerton, and his capture of the train wreckers marked the beginning of his connection with the Lake Shore road; a connection which lasted off and on throughout his lifetime. Whenever anything came up in the course of the administration of the road which needed investigation, the general manager would call on him, and he came finally to have an annual contract with the company under a sort of roving commission to find out anything he could that it was desirable the general manager should know. It was not so easy as it looked.

One of his most useful fields was in running down dishonest conductors, who, with the elementary ticket system then in force, were often a real menace to the prosperity of the road. Whenever he had nothing else to do he would drop into the general manager's office and say:

"I guess I'll take a run over the line for a day or two. You may get some messages from me."

Sure enough they would begin to come in within a few hours.

"Conductor No. 763 is knocking down fares. Brakeman No. 266 is insolent to passengers. Engineer of train No. 6 doesn't

whistle at crossings," and so on until he returned to Chicago.

Tricking the General Manager.

These excursions were veritable pleasure trips to Pinkerton, and he once told the general manager that the reason he liked them was because they gave him an opportunity to practise his disguises. The general manager had read Eugène Sue and the great "Lecocq" stories, but like most Americans he was skeptical of tales of that sort. It was this skepticism which led him to bet Pinkerton a dinner one day that he could not disguise himself so that he wouldn't know him.

DIDN'T RECOGNIZE HIM UNTIL PINKERTON INTRODUCED HIMSELF.

Two or three days after this conversation, a countryman in high, rawhide boots, with his trousers tucked into the tops, wearing a wide brimmed felt hat and a red bandanna handkerchief around his neck, sat down in the seat beside the general manager as the latter was coming to town from his country home in the suburbs of Chicago. The countryman's manner was most offensive. He quarreled with the conductor over paying his fare and crowded the general manager so that he remonstrated with him. The train had reached Chicago and the general manager was walking down the platform, when the countryman seized him by the arm.

"If you don't mind I'll call for that dinner after I've changed my clothes," he said.

The surprising thing about it was that Pinkerton's only disguise consisted in his rough clothes and in the accent he had assumed to change his voice. He also had long straight hair which with practise he had learned to arrange so as to completely change the expression of his face. He never used false beards or articles of that kind. After his experience on the train, the general manager met him many times when he didn't recognize him until Pinkerton introduced himself.

Scenting a Clue.

The general manager had many long talks with Pinkerton in the course of their acquaintance in which the great detective told him of his methods of solving cases on which he was employed.

"My first rule," he said, "is to determine what person has the greatest motive for committing the crime. Having decided on that it is generally a very simple matter to gather sufficient evidence to convict the offender."

In illustration of this Pinkerton told of a bank robbery in a small town near Chicago which he solved months after the police had abandoned the case.

"I never pay much attention to a case of that sort while the excitement over the discovery of the crime is at its height," he said. "It is much better to wait until the police have let it drop. Then the criminals begin to feel safe and relax their precautions.

"In the case in point, the cashier of a small bank in Springfield, Illinois, opened the bank vault one morning to find that it had been robbed during the night of every cent it contained. The locks had not been tampered with and there was absolutely nothing to explain how the thieves had entered the place. The police arrested the cashier as he and the president were the only persons who had the combination of the vault. His innocence was clearly established, however, and the case was at a standstill when I was called in.

First Impressions.

"I spent weeks in Springfield getting acquainted with the people in the town without letting who I was become known. My favorite plan was to pose as a life-insurance agent, as that gave me an excuse for asking questions

about those in the place without arousing suspicion. There is a good deal of intuition in my work, and it was that as much as anything else that led me to look up the record of a grocer who had a small shop diagonally across from the bank.

"I learned that he was regarded by his neighbors as a shiftless sort, and some of the wholesale merchants with whom he dealt in Chicago said he was very poor pay. I scraped up an acquaintance with him and found he had advertised his business for sale. There was nothing very suggestive about all this, and yet, whenever I pondered on the case, that grocer would bob up in my mind. I didn't like his looks in general, and he didn't have the air of a grocer. Furthermore, I soon learned that he knew very little about the details of the grocery business.

"I had made friends with the wife of a man who kept a notion store next to the grocery, and I played on her jealousy by praising in an off-hand way the appearance of the grocer's wife.

Aided by a Woman.

"'Well,' my gossip snapped out, 'all I've got to say is she doesn't meet my notions of an honest woman. None of the rest of us round here have money enough to go to Chicago every week, and she doesn't wear the same clothes she does at home when she goes, either. You wouldn't know her as she goes traipsin' off to the station.'

"This was news to me, for I thought I had studied the family pretty closely. It only goes to show that women are keener observers than men, when it comes to the little things. The next time I came near the grocery store I was dressed in a way which I knew would disguise me, and I shadowed the house until early one morning I saw Mrs. Grocer leave for the station. She was stylishly gowned, and, as the wife of the other storekeeper had said, you would hardly have recognized her. I followed her, and we took the train for Chicago together. She went straight to a bank on leaving the station there, and deposited a large sum of money.

"In the course of the day she visited four banks, and made deposits in each one. I let her go back to Springfield without molesting her, but I knew the minute I saw her enter the first bank that I was on the right track. When she returned to Springfield, two of my men went with her, and my orders were that they should watch the couple day and night, and arrest them if they started to leave town together, unless I gave them orders to the contrary.

"I then had another agent visit the grocer in Springfield and represent himself as a purchaser of his store. My object was to get the suspect and his wife out of Springfield for a day, so that I could have a clear field to go through their store. My agent arranged with the man and his wife to meet him in Chicago the next day, to sign the necessary deeds for the transfer of the property.

Closing In.

"As soon as my other men notified me that the coast was clear I broke into the store by a rear window and began my search. Everything in the place convinced me that the store was merely a blind to cover the man's real aims. The stock was small and evidently had been selected by a person who knew nothing about the business. I spent four hours in going over the store and living-rooms, however, without discovering the smallest thing to bear out my suspicions.

"Finally I went out into the back-yard, a small plot of ground surrounded on three sides by a high board-fence. There was nothing there to excite remark, and I had turned on my heel to reenter the shop, when, as I stepped on the stone flag put at the bottom of the steps, it tilted somewhat, and, glancing downward, I noticed that there was apparently a hole under it. I stooped over and found that the stone pulled out with little difficulty. Beneath it was a square hole, and leading from it a tunnel large enough for a man to crawl through with ease on his hands and knees.

The Hidden Passage.

"I got a candle from the store, and started to explore the passageway. Incidentally it was the hardest trip I ever took. The tunnel was at least 500 feet long, and I was thoroughly tired out when I reached a square hole at the end. Here a beam had been put upright, supporting a stone flagging at the top.

"I removed the beam, and pushed with all my might on the stone. After a time it gave way, and I climbed through the hole. My candle had gone out while I worked at the stone. Climbing to my feet after crawling through the opening, I relit my candle, and by its light saw that I was in the vault of the bank.

"The thing was so simple that it fairly

took my breath away. The vault was built with heavy brick walls on three sides and on the roof. This was lined with rolled sheet steel. The floor was of cement, with a coating of sheet steel over that.

"The bank officials, however, had foolishly put a layer of oil-cloth on the floor of the vault, and this had concealed the hole which the thief had drilled through the cement and the sheeting of the floor. Strange as it seems, neither the police nor I had thought to lift that piece of oilcloth. It was a lesson to me which I have never forgotten. After I had replaced the slab of cement over the hole and put back the beam supporting it, I crawled back through the tunnel to the grocery store, and waited there for the proprietor to return.

A Confession.

"When he came back we put him and his wife under arrest, and after showing them that I had discovered the tunnel, and that we knew where he had deposited his stealings, I asked him how long it had taken him to dig the tunnel. Seeing that the game was up, he acknowledged that he and his wife had been at work on the bore for six months. They had only been able to work at night for fear of arousing the suspicions of the neighbors. He had dug the tunnel with a small coal-shovel, taking the earth out in a bushel basket. They had spread this in layers over the back yard.

"The grocer turned out to be a man named Arthur Clapp, a crook well known to the police of New York and several of the large Eastern cities. It had become too hot for him to work in the East any longer, so he had taken the proceeds of his last robbery to buy the grocery store and stock necessary for his plot in Springfield. In all it had taken him a year to consummate the robbery, and he had planned, so he said, to retire, and live honestly."

Pinkerton was engaged by the Lake Shore Railroad to solve two train-wrecks later, in which romance played a most unusual part. At intervals of three months, two fast trains on the main line were ditched a short distance below a small way-station. There was absolutely nothing to show what had caused them. The track, except for some crushed ties, where the wheels of the trains had struck them in going off the rails, were in perfect condition, and an examination after the wrecks showed that there was nothing the matter with the trucks on either of the locomotives or the cars.

After the railroad officials had gone over all the evidence, Pinkerton was called in. He carefully investigated the circumstances of the first accident, but was unable to reach any conclusion. Then came the second disaster and a week's careful probing brought no results. He was talking to the general manager about the case one morning when a thought suddenly struck him.

"By Jove!" he said, "I believe I know who wrecked those trains."

"Who was it?" the general manager asked.

"The station-agent," he replied.

"Why we sent that fellow a letter of commendation for his good work at both those accidents," the general manager said. "He worked like a Trojan, day and night, while we were clearing away the wreck and showed that he had keen intelligence."

"I can't help it," Pinkerton said, "that's the only man that could have done it, and I'm going to look into it."

"Go ahead," the general manager said, "but I think you're on the wrong track."

Pinkerton went out to the little town where the station-agent was employed, and after his usual custom spent many days in getting acquainted with the people in the place. He didn't go near the station-agent, but he soon found that the latter was paying marked attention to the daughter of a well-to-do farmer, who lived on the outskirts of the place. Pinkerton made an excuse for getting to know the farmer, and stuck to it until he had been invited to his house for dinner.

A Woman in the Case.

There he met the daughter, and he found her to be the ordinary type of village flirt, dressed in cheap finery and with an exalted notion of her own charms. He seized a favorable opportunity to get her to discuss her many conquests, and soon found that the two principal suitors for her hand were the station-agent and a man who had been a soldier in the Civil War and had all the advantage that came of a romantic career in the army.

The war at that time was fresh in every one's mind and any man who could lay claim to war service was a hero in the community. The young woman, in a burst of confidence, admitted to Pinkerton, who had assumed all along an air of brotherly interest in her affairs, that she was divided in her own mind which of the two to take.

She admitted, though, that her feelings

for the station-agent had become warmer since his gallant work in rescuing the injured and dying from the two bad wrecks which had recently stirred the countryside. She produced, on Pinkerton's expressing an interest in the accidents, newspaper clippings telling of the station-agent's heroic work, and Pinkerton agreed with her that it showed the young man had lots of grit and courage.

Pinkerton had absolutely no definite evidence against the agent, but he decided to try a bluff. He went down to the station the day after his conversation with the girl and walked boldly into the office where the agent was at work at his telegraph key.

"You can't come in here," the agent said angrily. "The public is supposed to stay on the outside. This office is private."

Pinkerton very deliberately took off his hat, put it down on the table and sat down in the only other vacant chair in the little enclosure. Without answering the operator, he sat regarding him steadily for a minute or two, drumming with his fingers on the arm of his chair. He could see that the agent was nervous under his scrutiny.

"I thought I told you to get out of here?" the agent said again with a manner intended to be domineering, but which had a quaver of uncertainty back of it which was not lost on the detective.

Pinkerton continued to eye the man steadily and the agent became plainly more and more ill at ease. Finally, in a very quiet tone, Pinkerton said:

The Bluff That Worked.

"I'm a detective in the employ of the Lake Shore Railroad. I've come to arrest you for wrecking those two trains. I know why you did it and how you did it, and in fact all about it. You might just as well own up and take your medicine. It will be better for you in the end."

The agent's knees gave way under him and he sank back into his chair.

"How do you know I did it?" he asked weakly.

"Listen to me," Pinkerton said in an ordinary conversational tone as he drew his chair closer to that of the operator.

"You are in love with Miss Smith—don't deny it," he interposed hastily as the agent started to object. "I know all about it. We've talked about you and she says she likes you. She says she thinks you're a fine young man, and she's particularly proud of the work you did in saving the wounded from those trains. In fact, she thinks you're a hero.

"THE HARDEST TRIP I EVER TOOK."

"I've been in love myself, and I know how hard it is for a man to sit still and see some one else win the girl he wants himself. You knew Miss Smith favored that soldier, and you wanted to do something that would make you appear to advantage in her eyes as well as to gain the good-will of your employers. I guess you see your mistake now, but it's too late, and I guess you'll have to come with me."

Pinkerton's tone and manner was so sympathetic, albeit perfectly positive, that the agent gave way. He sat silently for a moment, his eyes fixed in a vacant stare, and then suddenly threw his head forward on his arms and sobbed like a child. Pinkerton didn't interrupt him, but waited patiently until the man's nerves steadied. Finally the agent sat up.

"I'm glad it's over," he said. "I couldn't have stood the strain of the last few months any longer. I haven't been able to sleep, and I think I should have killed myself soon, if you hadn't caught me."

HE SEIZED A FAVORABLE OPPORTUNITY TO GET HER TO DISCUSS HER MANY CONQUESTS.

On the way to the jail in Chicago the agent confirmed Pinkerton's theory as to why he caused the wrecks, and told him how he did it.

After making up his mind that in order to win the girl he must do something striking to win promotion and find favor in her eyes, he thought that if he could flag a fast train in the nick of time and gain credit for heroism it would accomplish his purpose. Accordingly, he took a crowbar one night and went to a deep cut on the line about half a mile from his station. There had been a series of heavy spring freshets in the previous week, and he thought that they would lend color to his plan. He pried loose a heavy boulder and sent it rolling down the bank to the track. Then he took his lantern and went up the track, intending to flag the train. To his horror, although he waved the flag frantically, neither the engineer nor the fireman saw it. He dashed the lantern into the cab as the engine passed him, but still the train tore along at full speed, and hit the boulder lying a hundred feet beyond. The force of the impact was so great that it lifted the boulder clear off the tracks, and that is why no explanation could be found for the wreck.

Horrified at what he had done, the station-agent ran down the tracks to the scene of the wreck, genuinely anxious to do everything in his power to aid those for whose injuries he was responsible. He worked like a maniac, and it was his unusual zeal which attracted the officials of the road. The newspapers heard of his effort, and the reporters, always anxious for a "feature," made him the hero of the day. This blinded him to the enormity of his crime, and made him thirst for still more glory. Therefore, with the praises of every one sounding in his ears, he decided to try the same thing again.

This time he decided to put a steel wedge on the track, and so hardened had his first immunity made him that he apparently gave up any idea of stopping the train before it was wrecked. Twelve people were killed in this accident. The station-agent was subsequently hanged.

RAILROAD FISH PLANTING.

THE Lehigh Valley Railroad is helping the fish commissioners of New York and Pennsylvania stock the streams in these two States with fish. The Pennsylvania commissioner, W. E. Meehan, has sent out 300 cans of trout fry, from the Harrisburg hatcheries, for planting along the line.

The company is also cooperating with the New York commissioner in his efforts to stock the up-State streams with trout and bass. A corps of trained attendants accompanies each consignment of fish, to see that they are fed at regular intervals and planted scientifically. Every effort is made to transport them with the least possible delay.

The company arranges with outing clubs and individuals to be on hand when the fish arrive, so no time will be lost in getting them to the water.

The Best-Tailored Individual On the Line.

BY ROBERT FULKERSON HOFFMAN.

SOMEWHERE in every large railroad station, if you keep your eyes wide open, you will discover this well-dressed individual whose clothes are cut to fit with a precision and nicety that is seldom to be found in the best tailor-shops, and which have a dash and swagger that could never be obtained in the most expensive ready-mades.

Frequently several of these immaculate individuals, who dress very much alike, may be seen ready to make their departure from a big terminal, as they are great travelers and are always on the rail.

No, they are not knights of the grip, bankers, railroad presidents, or globe-trotters. Once you see them you will be sure to know them by the traveling-jackets, which they always wear, and by the simple pattern from which their garb is made. And they are quite fashionable.

Just Try a Few Guesses, and Once on the Track, the Solution of the Mystery Will Soon Strike Your Mental Solar Plexus.

IN this day of robust prices, of exact niceties of dress, and of other things that have their useful parts in helping us to forget that long, long ago, when we crept stealthily out of a cavern and, cudgel in hand, procured a new suit of fox-pelt at first hand where it grew, how would you like to pay about two hundred and fifteen dollars for a suit of clothes?

This question, of course, has nothing to do with that gender of mysterious apparel, fearfully and wonderfully made, which far passeth the understanding of men. It is a man's problem, solely, and it does not contemplate the inclusion of a silk hat, silk-lined swallow-tailed coat, low-cut waistcoat, and patent-leather pumps. It has to do only with a very good, very plain, very nicely fitted business or working suit, of which you may have seen many and never known their value.

We may yet, however, have to include something of the feminine in this consideration, even at the risk of making our two-hundred and-fifteen-dollar outfit seem cheap by comparison with some Parisian creation of the gentler sort, which might loom large before the mental eye of a reader who does not rejoice in bifurcated serge or blue jeans.

At any rate, if you were standing in any one of the great railroad terminals, say the Union Station in Boston, the Grand Central in New York, the Rock Island in Chicago, or the Union Terminal in St. Louis, and the man who knew should ask of you, "Which is the best-dressed individual in this throng?" you would be apt to gaze at him in some surprise, you might even look around at the kaleidoscopic throngs about you, and then give up promptly, as to the answering. Very probably, unless you knew your questioner well, you would edge away from him as politely and as expeditiously as possible.

But if your questioner should be given op-

portunity to answer his own question correctly, he would say merely, "There she stands!" and so introduce the only element of femininity with which this has to do, and as much of individuality as the occasion will permit, by pointing out the big Pacific-type locomotive, standing at the head of your train in the big shed, ready to start you across the continent, or to where you will.

The Glad Rags of a Locomotive.

If, following that answer, your questioner should further ask, "What color is a locomotive?" you might feel so sure that you knew the answer, as to allow yourself a certain measure of disdain for so plain a query. From the nature of his questions, whether you happened to be of the railroad fraternity or not, it would be clear to you that your friend the questioner was either of that keen-witted brotherhood, or close of kin to it, and that he probably had some clear method in his apparent drollery. Let us see:

Once more back to the long ago, to the time of the primitive engine "Hero," which will be eminently safe ground as to time. Then a locomotive ran naked in the elements, with not even a freshly drawn fox-pelt with which to cover itself.

Later, it was found advisable to provide some sort of protection for them—raiment, clothing, a "jacket," in the language of the initiated. First, so far as we know, this was a crude sheathing of wood, which did very well with low steam pressures and correspondingly low resultant temperatures.

Evolution of an Engine's Jacket.

Then, with regard for appearances as well as for durability, a sheathing of iron was added. Still later, a heavy blanket of hair-felt was first laid closely upon the exterior of the locomotive boiler. Over this was carefully coopered a close-fitting suit of smooth pine boards held tightly in place by thin and narrow hoops of iron, and, outside of this and smoothly encasing the whole, a jacket of thin sheet-brass, or of sheet-iron, with broad bands of thin brass, was fitted and drawn tightly to place.

Still later, it was found that the hair-felt in a short time charred to dust in the great heat of the boiler, and that the pine boards charred almost as badly and sometimes caught fire and burned fiercely under the iron jacket, while the locomotive fanned the flames with its speed. All this was expensive, short-lived, exceedingly troublesome, and sometimes dangerous, due to the blinding of the engineer by smoke while running fast.

Out of all these former glad rags, was evolved the trim and simple double suit that clothes the locomotive of to-day, namely: a complete suit of snowy-white magnesia-asbestos board about one inch thick, sometimes thicker, cleated closely upon its russet-red shell of steel. Over that, a plain and beautifully simple jacket of planished steel of the familiar blue-gray that flashes by at the head of every swift-flying limited, or plods patiently along at front end of every heavy-laden freight train, is placed with a skill which requires the apt calculations of a man well versed in mathematics and even geometry, and necessitates as deft a cutting and fitting as that of any tailor.

What the Wardrobe Costs.

This suit, as we have elected to call it, for an up-to-date Pacific-type passenger locomotive of a proper size to carry cylinders having a twenty-two-inch diameter and a twenty-eight-inch stroke, costs, as we have noted, two hundred and fifteen dollars, approximately, and that cost is made up as follows:

Magnesia-asbestos board	$78
Labor, fitting, and applying	27
Planished-steel jacket	55
Labor, cutting, and fitting, labor applying planished jacket to engine	55
Total cost, labor and material, one engine	$215

That is to say, of the total purchase price of a locomotive such as we are considering, costing from $12,000 to $15,000, approximately 1½ per cent is paid for its mere outward clothing. Why?

Manufacturers of railroad rolling-stock are not more given than other manufacturers to the outlay of money solely for appearance or sentiment, even though a certain sentiment for locomotives—almost equal to a personal liking—exists in the minds of most railroad men. The reason, then, for this very considerable outlay, not far to seek and familiar to most of us, must be practical and of a definite value in its application. Reduced to its plainest terms, it is this:

Why an Engine Needs Coverings.

A locomotive stripped of its jacket and lagging, running nakedly in the out of doors upon its customary schedule, would suffer

the same physical loss as a man denuded of his clothing, although not, of course, in just the same manner of detail. But, in case both were thus exposed and both could survive the exposure, proceeding about their allotted tasks, the net result would be in large measure the same: an extravagant loss of energy.

This fact was early recognized, and, as we have seen, in some measure provided for in locomotive practise. Yet, a superficial view of practise which requires the expenditure of approximately one dollar and a half out of every one hundred dollars invested in the purchase of the superb locomotive of to-day, ranging into thousands of dollars of total first cost, would seem to mark the first-named sum as a disproportionate and extravagant sum to be set aside for the mere outward clothing of a high-power machine.

That conclusion, however, would be very far from the fact. The jacket, in an impassive way and rated by its first cost, is one of the most important dividend-earners on any locomotive and, in fact, upon any railroad.

We are aware that that is a pretty broad statement, but it is also a statement which will bear analysis.

Comparative Tests.

In 1897 or 1898, or perhaps a little earlier, some tests were planned and made on the Chicago and Northwestern Railroad, at Chicago, with a locomotive properly lagged and jacketed, and again with the same locomotive, under conditions as nearly similar as could be obtained for working the locomotive while it was stripped bare of lagging and jacket. The net result, as we recall it, was a clear saving of 26 per cent of coal used by the naked engine as compared with that used by the jacketed engine.

These tests, as reported at the time, were made with the locomotive running regularly upon the road, and also while it was at rest at the West Fortieth Street shop-yards, thus giving the means of checking up results and confirming the value of figures obtained.

That the above mentioned percentage of gain, which is quoted from memory, and which is open to confirmation or correction by any of our Northwestern friends who may chance to see this article, was safely conservative and wholly within the facts, there can be no doubt. The writer, while employed as mechanical engineer of the Atchison, Topeka and Santa Fe Railway, in 1899, had opportunity to confirm this on a somewhat larger, although fairly parallel, scale.

There were on the Santa Fe system at that time three timber-preserving plants, having a total of eleven large cylinders for the reception and treatment of timber. The plant at Somerville, Texas, had six cylinders; Belmont, Arizona, had two, and Las Vegas, New Mexico, three. From this distribution it will be apparent that the train-haul of fuel from any available source was long, to some of the plants, and the fuel cost correspondingly high.

The Writer's Experience.

This, with the large dimensions of the cylinders, the long periods of maintaining steam pressure in them during the cooking process, and the fact that up to that time all of these cylinders were worked with no covering whatever except the plain board buildings in which they were installed, had attracted attention to the fuel-bills and the advisability of lagging the preserving cylinders.

Looking to that end, the writer mapped out and made a test of one of the cylinders under conditions which were peculiarly well adapted to the obtainment of reliable data on the money value of good heat insulation.

The preserving cylinders at the Las Vegas plant were of steel, nine-sixteenths of an inch thick, having an outside diameter of about six feet and a length over all of close to 112 feet.

To cover one cylinder, therefore, not including the cast-iron hinged door at the head end, which was impracticable at that time because of a massive and somewhat complicated screw-clamp used for locking, required over 2,000 square feet of magnesia-asbestos lagging.

The preserving process regularly employed involved, briefly, the running of a narrow-gage train load of timber into the cylinder, on suitable small trucks; sealing the door of the cylinder; cooking the timber for some hours under the pressure of live steam turned in from an adjacent stationary boiler plant; pumping a very low vacuum; turning in the treating solution (not heated), and, after thorough saturation to the desired depth was assured, returning the treating solution by gravity to its tank.

From this it will be seen that there was an alternate chilling and heating of the great expanse of cylinder steel to be accomplished, in addition to the heavy loss by radiation

while the cylinder was under steam pressure in the big up-and-down board building which housed that part of the plant rather loosely.

One of the two boilers in the stationary battery was shut off from all connection with its fellow, in preparation for the test, and all other connections of the plant were shut off except direct connections of this boiler and the heavy vacuum pump as they were related to preserving cylinder No. 1. The inspirator for the boiler was fed from a temporary tank standing upon a platform scale, thus giving a record by weight of all water fed to the boiler.

Coal fired during the test was carefully weighed and skilfully used. The duty of the vacuum pump being the same for each division of the test, the steam used for the pump was set aside as nil. All other water weighed in through the inspirator therefore represented the amount condensed in the preserving cylinder, as will appear.

On October 23, the test of preserving cylinder No. 1, naked, was made. The cylinder was sealed, left empty to avoid the factor of green or seasoned timber, and a vacuum of twenty-one and one-half inches of mercury was produced in it. From the stationary boiler carrying constantly two gages of water and a steam pressure of one hundred and thirty pounds, steam was throttled into the preserving cylinder by John A. McLearie, and maintained at a constant average pressure of about twenty-two pounds per square inch, for a period of five hours. A pressure-recording gage gave a definite and graphic record of the pressure maintained.

Between October 24 and October 29, this No. 1 cylinder was carefully lagged with a coat of magnesia-asbestos board, and, on the latter date, the first test was duplicated in every particular. The results are tabulated for convenient comparison, below:

	Oct. 23. Cyl. bare.	Oct. 29. Cyl. lagged.
Outside temp. atmos. (av.)..	64.2°	64.1°
Temp. cyl.-house (av.).....	119.7°	81°
Extreme temp. cyl.-house..	133°	88°
Temp. feed-water (av.)....	55.6°	55.6°
Water fed to boiler, lbs....	8202.26	6061.02
Gallons....	976.46	721.55
Coal fired to boiler, lbs....	1269	774

On both occasions: Weather clear; swirling wind of approximately fifteen miles per hour.

Coal: Blossburg, New Mexico, bituminous run of mine, good quality.

To bring about the change of operation shown, had cost $373.40 for labor and material in lagging the first cylinder experimentally. From that experience with common stock of lagging material, it was estimated that the labor cost for lagging other cylinders with more suitable sizes of board could be reduced to $25.00 per cylinder, bringing the total cost of lagging one cylinder down to $283.60.

How Coal Is Saved.

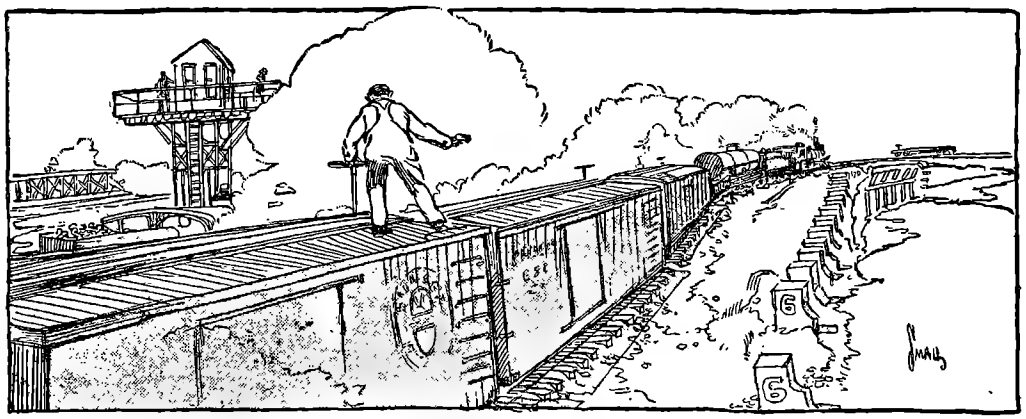
The cost of coal used at the Las Vegas plant for three cylinders, for a period of seven months preceding that time, was, by invoice, $1,142.66; and applying the same ratio to the total of eleven cylinders for the whole system (the coal cost at Belmont and Somerville was higher, however), the saving of 39 per cent of coal, as shown by the figures for the Las Vegas test, made the way clear to the saving of $1,633.97 in each lapse of seven months by the single outlay of $4,189.68, to lag the eleven cylinders, at the labor and material prices then ruling.

All of which brings us through and well out of the dry-as-dust statistics and to where the man of the cloth would point his moral, or the logician append his corollary. Probably it will serve our need as well, however, to call it simply the point, and that is:

Lag and jacket boilers, cylinders, and every other radiating and exposed part that is accessible as carefully as you would clothe your body, and keep them lagged. Every piece of boiler-covering that is removed and not replaced in hasty repairs; every cylinder-head or steam-chest that is stripped and sent out with only its steel casing to cover it; every naked steam-pipe or dome-cap is draining away power as really as though each one of them dripped hot water upon the right-of-way.

This bald fact, familiar to most of us and by most of us too often forgotten, is the key to the reason why a locomotive is russet-red, snowy-white, and blue-gray in color; why it is so carefully tailored; and why it is the best-dressed individual in any station throng.

Good luck loves a clear fire. Do *your* share.—Reflections of an Engineer.



WHEN THE BOOMER BEAT IT.

BY W. H. WILCOX.

The Candidate for the Booby-Hatch Had Him On the Run, But at the End of the Chase, Positions Changed.

THE once immaculate McCarty was a sight to behold. Huge rents ventilated each leg of his overalls, which were held in place by a safety-pin and a tenpenny nail, in lieu of the customary buttons. The general color scheme of both overalls and jumper, which had originally been blue, was now a sadly mottled combination of black and brown, with here and there a trace of the basic hue still struggling for existence, but waging a losing battle against the legions of coal-dust, oil, and grease, which were gradually lending a shiny, enamel-like surface to the cloth.

Formerly the word cleanliness had been symbolical of McCarty in the minds of all the men on the division. But that was before Mrs. McCarty had departed on a three months' trip to the old country. Unfortunately, she seemed to have taken all her worthy spouse's love for neatness along with her, and a sad and steady disintegration of McCarty's immaculacy had set in.

It is not to be wondered at, then, that the boomer stared in open-mouthed astonishment at the representative of rags and dirt that joined the other men beneath the water-tank.

For three months the boomer had been isolated on the work-train at West Farms, a small hamlet with a population, as he expressed it, of one, Lizzie, her mama, two oxen, six hens, a million sand-fleas, and a hired man. Before he had departed to rusticate in the West Farms sand-pit, McCarty had undoubtedly been the cleanest fireman on the system.

"Holy smoke," said the boomer, "what has happened to McCarty?"

When the old cat's away,
All the mice they will play.

"It looks like a big night to-night," sang Cyclone Brown.

"Oh, that's it, is it? Mrs. McCarty's away and Mac's runnin' wild."

"Yes, and ain't he an awful-looking animal to be holdin' down the left side of the Nutmeg Limited!" observed old Pop Morgan.

"Aw, if yer don't like m'looks, yer needn't look at me. There ain't anything in the book says yer have ter keep yer eyes glued on the fireman."

"I knew the book of rules before you was hatched, McCarty, but I still say you're an awful-lookin' object to be sharin' the cab with a respectable-lookin' man like me. You're enough to drive a man to the insane asylum."

"Yer ought to be down in Middletown, anyway," retorted McCarty. "You're about as near bughouse as any one I know."

"Speaking of crazy people," observed the boomer, "reminds me of an experience I had when I was firin' on the D. and M."

"Holy gee!" ejaculated Punk Riley, "the boomer's dreamin' again. I'll bet he told fairy tales to the sand-fleas down to West Farms. His trip to the gravel-pit didn't do him any good."

"I want you to understand, Riley, that I don't tell any pipe-dreams. Whatever stories I relate are true happenin's. However, if you don't want to listen to 'em, you needn't," and he arose in offended dignity.

"Hold on, boomer," said Chub Eddy, grabbing the boomer's coat-tails and pulling him back onto the bench.

"Tell us your experience with the crazy man. We'll keep that empty head quiet or throw him in the Connecticut. Won't we, fellers?" he asked, turning to his immediate followers, whereupon such a unanimous shout of assent issued from those worthies that Riley sat up in sudden apprehension.

On being assured that Punk's sole hope of escaping the chilly waters of the river lay in his absolute silence, the boomer began:

"Well, you see, I was working spare out of Barton. One night, Carter, the fellow firing the Willington scoot, sprained his ankle going home from the roundhouse, and they sent me to dead-head up there and cover his run in the morning. The call-boy didn't come after me until nearly eleven o'clock, and by the time I got over to the engine-house and secured my overalls, the last passenger-train had gone, so I fixed it up with Slicky Maynard, who pulled the night freight, to slow down at Willington and let me off.

"Everything went along as smooth as grease till I struck that lonesome, one-horse village. 'Huh,' says I, after droppin' off 273's back, 'I'm sure some glad I don't live in this dead-and-buried place. A fellow of my disposition would die of monotony here.' But it wasn't goin' to be any monotonous that night. Not on your life, though I didn't know it when I was grumblin' to myself, of course.

"I hikes over to the operator's shanty, a little eight-by-ten shack, full of levers, with barely room for a chair and operatin'-table.

"'Say, Hank,' says I, rudely awakenin' the key manipulator, 'stop dreamin' about your country Susan, and tell a guy where he can get a bed in this here one-horse burg.'

"'How'n thunder d'you 'spose I know?' says he. 'You big, lopsided coal-heaver, I ain't no more rube than you are. I live in Barton, and come up on 178 every night.'

"'A thousand apologies,' says I. 'I thought you were a resident of this here place, though I might 'a' known by your looks you never were hatched in no such cemetery as this.'

"That mollified him somewhat, and he informed me that there was a widow woman lived back of the station who took boarders. In the absence of any hotel, it was me for the widder's, and I hot-footed it over to the house he pointed out from the shanty window.

"After makin' a noise like a full-grown boiler-works, or a kid's dishpan brigade, on the front door for about half an hour, I finally succeeded in awakenin' the guardian of the place in the shape of a Boston bull-terrier. He came gallopin' around the corner, lookin' in the moonlight as big as a sheep, and displayin' a row of teeth like so many rail-spikes.

"I didn't stop for closer acquaintance. Oh, no!

"'Good-by, widder,' says I, and I beats it for the road. Fortunately for me, there was a picket fence around the house, and I am a good jumper. I took that wooden separator in just one leap; and I was none too previous, either, for doggie was comin' so close to my heels he couldn't stop when he put the brakes on, and he bumped his dear little nose against the pickets.

"That didn't seem to please him any, judgin' from the racket he started. He was just in the middle of his third or fourth series of yelps, and I was standin' across the road, tellin' him what I thought of him and any one who would keep his likes around, when the window over the front-door opened, and a high-pressure, narrow-gage sort of a female, in a red flannel nightgown and a head full of newspaper clippin's, appeared in the openin'.

"'If you don't stop that awful language,' says she, 'I'll telephone for Sheriff Jones. You ought to be ashamed of yourself. If I used such talk, I'd be afraid the Lord would strike me dead in my tracks.'

"You see, I'd skinned my shins getting over the fence, and I guess my conversation wa'n't any too genteel.

"'Madam,' says I, 'if you don't like railroad talk, you hadn't ought to live near the track.'

"She started in on a thorough dissection of

the morals of any man that would use profanity, but I didn't stop to hear her. Doggie had found a place where there was a loose picket, and was struggling hard to get through. He already had his front feet on my side of the fence, and was stuck in the middle, but squirming so that it looked at any minute as though his caboose might follow, so I pegged a rock at him and retreated to the operator's shanty.

"'What's the matter, Bill?' asks the op the minute I poked my head through the door.

"'Why, you red-headed, biscuit-faced dope. I got a good mind to put a dent in your empty skull with this dinner-bucket,' says I. 'Why didn't you tell me there was a small-sized elephant over there?'

"'To tell you the truth,' says he, 'I forgot the dog.'

"'Well, this ain't gettin' me any bed. Do you know any other place here where they take boarders, and don't keep any canines around?'

"'No,' says he. 'Guess you will have to sleep in the coaches to-night.'

"'Guess again, Rosy,' said I. 'You're about as handy at guessin' as a cow with a musket. Must be you want me to freeze to death. I'd look nice, wouldn't I? The last of November, no steam on those coaches, and little Willie bein' slowly refrigerated. Nay, Pauline! I guess I can manage to get a few hours' sleep on the roof of the cab. It's warm in the engine-house, anyway.' I seized my dinner-pail and started for the door.

"'Look out for the watchman there,' called the op after me. 'He's been in the bug-house at Tewksbury for the last year, and though they have pronounced him cured, he still acts rather queer, and is liable to break out again any time.'

"'Tell that pipe-dream to the despatcher,' says I, thinkin' he was tryin' to kid me.

"I hiked over to the roundhouse, hunted up a bundle of waste for a pillow, and crawled up on the roof of the 248. Looked all around the house and made racket enough for a dozen men, but no sign of the watchman did I see.

"I don't know how long I slept. Maybe a half an hour, perhaps three-quarters, but when I did wake up it was some sudden, and with a sense of something wrong. There was something wrong, too. About the first thing my eyes lighted on was the watchman comin' up over the runnin'-board with an ax in his hand.

"His head was just on a level with the cab-roof, and the light from one of the house-lamps shone full on his face. One look was enough to tell me he had gone plumb crazy again. Of all the devilish expressions I ever saw, his was certainly the capper.

"You can bet it wasn't more than the sixteenth part of a second before I was on my way over the coal-pile for the back of the tank, and I didn't linger none in gettin' off that tender either.

"Soon as he saw he was discovered, he let out an unholy shriek, that sent the cold chills racin' up and down my spine by regiments, and took after me. I was goin' a pretty good gait when I left the back of that tank, but when he let out another one of those terrifyin' yells of his, it added about ten miles an hour to my runnin' powers. Round and round the engine-house we went, in a regular indoor Marathon, with me lookin' for a place to get out, and him swingin' that ax, and lettin' out a blood-curdlin' yell every time we passed the 248.

"I surely thought it was all up with me. About the twelfth lap my heart was poundin' like a C. V. compound, both feet weighed about a ton apiece, and there was a funny feelin' across the back of my head, an imaginary line just where I figured the ax would strike.

"What the outcome would have been had nothing interfered with the lunatic's sprintin' powers, I hate to think. Happily for me, though, he slipped on a greasy spot on the concrete floor, and slid into one of the vacant pits. That gave me time while he was scramblin' out to draw the bolt on one of the doors and jump outside.

"But just because I stood outside that engine-house didn't give me any time to waste. No, sir! Mr. Crazy Guy was out of that pit in an instant, and after me the next.

"It was a bright moonlight night, and you could see everything plain as day for two miles. I was too near all in for to attempt a cross-country race with the lunatic and his ax, so I ran around the corner of the engine-house, lookin' for some place to hide, or for a club, so that when the end came, I'd stand some show in the fight I was bound I'd put up.

"I had hardly turned the corner when I ran plumb into a ladder standing up against the side of the house. It reached clear up to the roof, and looked so invitin' that I didn't stop to wonder how it came there, but climbed as fast as I could work my feet. At that, I just stepped off the top rung onto the flat, tarred roof, when Buggy started up from the

bottom. I let him get half-way up and then suddenly turned the ladder over.

"He wasn't lookin' for any more like that, and consequently was shaken off, droppin' pretty hard on the top of an old tank that lay next the wall. For a few minutes he lay there without a move, while I hauled the ladder up on the roof.

"I thought at first he was killed, but for a while I was too nearly winded to try any fancy investigatin' stunts, so I laid down on the roof and watched him over the edge. Soon I noticed his head was almost imperceptibly turning so he could get one eye on me, and I concluded he was playin' 'possum.

"'Not so you'd notice it, Bill,' says I. 'You can play you're dead as long as you want to, but little Willie stays right up here till help arrives.'

"He stayed there a couple of minutes after I said my little piece to him, then all of a sudden jumped up and off the tank, and made for the turntable. He spotted the table opposite the stall where the 248 lay, in which position there was a straight track from the back of that pit, clear across the table over the ash-pit, by the water-plug, out to the switch on the Laurent branch.

"I was wondering what he was up to, when bang! the 248 comes out of the house, takin' the door with her, runs across the table, down the runnin' track, and through the switch out onto the branch. He stopped to clear the switch, got off, lined up the iron, and climbed back into the cab. The next minute the 248 starts up the line toward Salem Junction, gathering speed with every revolution of the drivers, and rippin' the exhausts out of her stack like a Gatlin'-gun.

"I stood there on the roof listenin' to the sound of her steam until it had become almost imperceptible. Then, suddenly, I remembered the Horn freight out of Salem Junction at 3.40, and that if it was on time it would just about meet the lunatic with the light engine in Snake Hollow.

"I didn't lose any more time listenin' for the sound of the 248's exhaust, but dumped my ladder over the edge and slid down the side-pieces. I hardly think my feet touched the ground before I was on my way for the operator's shanty.

"'Call up Salem, and stop the Horn, Bill,' I yelled, bustin' in the door.

"'What for?' he asks, real sleepily, but nevertheless reaching for the instrument.

"'That crazy watchman's got the 248 out on the branch, and is headed for Salem at seventy miles an hour.'

"Click-click-clickety-click-click, he banged away with the key in a regular fever of excitement, while the perspiration started down his face.

"'It's no use,' he says, 'I can't get Salem. There's something the matter with the wire. I'll call up Barton and see if the despatcher can get him by way of Lovell over the Eastern division. He'd hardly cut his main-line instrument, when I thought I heard somethin' comin', and sure enough, when I looked up the branch, through the op's window, there was the 248 comin' back like a whirlwind. You could just see a black spot in the moonlight away up the long piece of straight iron, looming against the snow, but I knew from the pall of black smoke that floated away over the white tops of the trees that it was an engine, and it could only be the 248.

"'When is 34 due here?'" I demanded.

"'3.44,' says he.

"'Gimme that red light,' I yells, climbin' over a forest of levers and breakin' for the door.

"'There's no tellin' but what that lunatic will run through the main-line switch, and it's 3.40 right now."

"'Can't,' bellows the op. 'They put a derail in on the branch yesterday. I only hope he tries it. If he'll get the 248 off here so he can't move her, we'll have a chance to flag the Horn maybe,' all the time poundin' away at his key.

"'Great Scott!' says he, suddenly crumplin' up in his chair.

"'Barton says the Horn left Salem four minutes ago.'

"'Come on,' I yells, 'we got to stop him somehow.'

"'How we goin' to do it?' asks the op. We were already half way to the engine-house switch.

"'If he don't run the signal and go off the derail, he'll have to stop before he gets to it, and we got to jump on the pilot when she goes by and pull the angle-cock open. That will set the brakes on her, and he can't move as long as there is sufficient air in the brake cylinders to keep the brakes on tight.'

"Luck was with us that night. Had we prearranged every move, the whole business could hardly have passed off more smoothly. The 248 rolled to a stop with the rear of the tank directly opposite the place where we were crouched, every muscle tense and vibrant, awaiting the proper moment for a spring that would land us on the pilot. Of

course all we had to do then was to step over and turn the angle-cock on the back of the tank, and the 248 became as helpless as a dead cow.

"Up on the cab we could hear the lunatic throwin' the lever back and forth, and swearin' cuss words of all colors.

"'He'll be down in a minute,' says I, 'and it's up to us to think up some kind of a reception for him when he comes.'

"We were standing close to the section shanty, with its usual pile of scrap-iron to one side.

"The op suddenly sprang over to the heap of odds and ends, and in a jiffy was back with a piece of iron pipe, about three feet long, which he thrust into my hand.

"'Stand close up to the edge of the tender,' he says, 'and I'll show myself on that side. When he makes after me you be ready, and the instant he goes by the end of the tank wallop him on the block as hard as you can.'

"'All right, oppie,' says I, and the next minute the op was up alongside the cab, spittin' out cuss words at Mr. Bug-House.

"I stood close up to the edge of the tank, my pipe upraised, and all ready to put the whole of my hundred and eighty pounds into a blow that would send the lunatic to dreamland, but I was so excited I nearly let the operator have it instead of the watchman. When it did land, it went straight to the mark, and the poor wretch crumpled up like a rag-doll.

"I thought I'd killed him at first, but we found on investigation he was only stunned, so the op went after the bell-rope to tie him with, while I stood over him to administer another piece of persuasion if he came back to life too soon.

"No, sir! I reckon there wasn't anything monotonous about that night," and the boomer paused reminiscently.

"Aw, say," interrupted Punk, "if you'd tell that story to a mule he'd kick your head off."

This remark of Riley's was apparently just what Chub Eddy and his followers were awaiting, for with one accord they arose and fell on his startled Punkship. The squirming, heaving, tangled mass of heads, arms, and legs, presently resolved itself into a group headed for the river, and carrying the futilely struggling Punk in their midst.

"Hey!" ejaculated Windy Sanderson, wiping the perspiration from his face with one hand and keeping the fingers of the other closely clutched in a death-like grip on one of Riley's ankles.

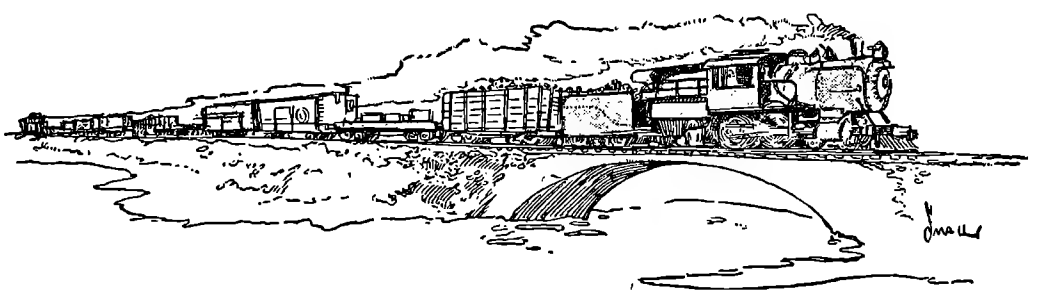
"It's too far to carry this big ox over to the river. Let's tie him to the drain gate under the old plug and drop the lever. The water comes in a rush there, and it'll be just the same as droppin' him in the Connecticut."

A unanimous shout of approval greeted this suggestion, and soon the unfortunate Riley lay atop the drain grating with six gleeful firemen superimposed upon his still struggling but somewhat exhausted anatomy, while a seventh hot-footed it to the engine-house after a piece of bell-rope.

So taken up with Riley and his coming punishment were they, that one and all failed to observe the boomer lift the link off the lever governing the water-valve. Their first indication that anything was amiss with their plans occurred when the eight-inch stream of icy water descended upon their tousled heads.

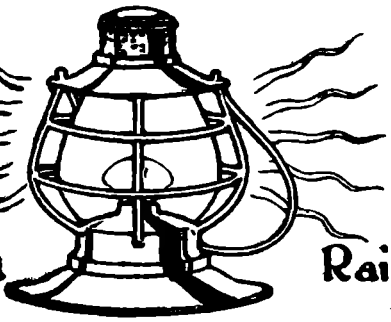
Bewildered, drenched, and gasping for breath, they stumbled and rolled from beneath the watery deluge, in time to see the boomer streaking across the field back of the engine-house to the accompaniment of the cheerful tones of the dinner-bell wielded vigorously by Mother Jones from the door of the boarding-house.

For an instant the boomer paused in the door and surveyed the dripping, watery, profane group lined up along the railroad fence. Then, with a seraphic smile and a hand-flip of derision, he disappeared.



WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. It is limited to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

WHAT is the best and most concise description of a locomotive which you can quote?

(2) What is meant by the Gooch valve motion?—C. H., Binghamton, New York.

(1) A self-propelled vehicle running on rails for the purpose of hauling cars. It may be operated by steam, electricity, gas from volatile oils, or compressed air. Few compressed-air locomotives have been built, but they resemble steam locomotives in general design and mode of utilizing the exhaustible fluid.

Steam locomotives consist of a boiler and engine mounted on a frame supported on wheels. These wheels are turned by the engine. The boiler contains water, and has a fire-box forming part of it, in which fuel is burned to supply heat to the water and convert it into steam.

The steam passes through a valve called a throttle-valve, thence through pipes to the steam-chests, from which valves, operated by a connection from the main shaft or axle, or from the crank-pin, as in the instance of the Walschaert gear, automatically admit it alternately to each end of the cylinders and exhaust it therefrom into the atmosphere through the exhaust-pipes and stack.

The expansive force of the steam moves the pistons, piston-rods, and crossheads back and forth, and, as the crosshead moves in guides and has one end of the main rod connected to it at the wrist-pin, while the other end of the main rod is connected to the crank-pin on the driving-wheel, the reciprocating motion of the piston is thereby changed into a rotary motion of the driving-wheels.

A locomotive thus transforms stored-up, or potential, energy of fuel, into the kinetic energy, or mechanical work of propelling itself and hauling cars.

(2) The Gooch is a valve motion, employing two eccentrics, link, link-block, and rocker, very similar to the Stephenson motion, but differing from it in having the link stationary.

On the whole, it greatly resembles the motion used by Thatcher Perkins on his famous Baltimore and Ohio ten-wheel engines of about fifty years ago. It is not in general use.

WHAT are the dangers to which engineers and firemen are exposed by their work on the engine?—J. H. E., Baltimore, Maryland.

Engineers and firemen are not only exposed to bodily injury, or even death, in many accidents which may happen to their engine, but, unless they are very careful to preserve their health, it is quickly destroyed by the constant changes of the weather to which their position exposes them, and also by the effect of the heat of the fire and by smoke. The coal gases which pour out of the furnace-door, if it is opened when the throttle is closed, have an especially injurious effect on the throat and lungs.

The steady loud clatter which an engine makes while running has an injurious effect on many

nervous systems. Engineers, as a rule, endeavor to lessen these shocks of the engine by keeping close watch over it and endeavoring to maintain the proper adjustment of its parts.

Owing to the demand which their daily labor makes upon their strength and endurance, locomotive engineers must be careful not to increase the strain by dissipation, irregular hours, or overwork. There seems to be something about the power of endurance of the human frame analogous to the capacity of a bar of iron or steel to resist strains. So long as the strains do not exceed the elastic limit—that is, if the bar recovers its original length when the strain is removed—it will bear millions of such strains without becoming weaker, but if it is strained so hard that it is permanently stretched, then comparatively few applications of the force will rupture the bar.

In a similar way, if the strain or fatigue, which a man endures, is no more than he will recover from after an ordinary rest, he can endure an almost unlimited number of such strains; but, if the fatigue exceeds his "elastic limit," then he soon becomes permanently injured.

The sixteen-hour law, now of general application, practically prohibits the working of excessively long hours, and makes the matter of proper rest between intervals of duty mandatory on the part of the railroads and the employees as well.

G. W. T., Knoxville, Tennessee.—The strain on the cylindrical part of a boiler can be calculated by multiplying its diameter in inches by its length in inches and its product by the steam pressure per square inch. Thus, for a boiler 48 inches in diameter and 10 feet long, with 100 pounds pressure, the calculation would be 48 x 120 x 100=576,000 pounds. The reason for multiplying by the diameter instead of by the circumference is because only a portion of the pressure on the inside surface of the boiler exerts a force to burst the shell at any one point.

PLEASE advise if there is a bridge across the Mississippi River at Memphis, Tennessee, or if the trains are ferried across.—F. W. T., Ogden, Utah.

By a bridge; there is no ferry.

HOW many pounds of steam does it take to whistle for crossings, stations, etc.?

(2) Are there any locomotives running which require two firemen?

(3) Who is the oldest operator on the Chicago, Milwaukee, and St. Paul Railroad?—A. W. B., Lima Center, Wisconsin.

(1) The amount of steam expended for such a purpose is insignificant in view of the free steaming qualities of modern locomotive boilers, and would have no appreciable effect on the steam-gage, unless the whistling were unduly prolonged. Since it would have no effect on the steam-gage, it is impossible to answer your question, as the gage is the measure of boiler-pressure.

(2) We cannot recall any such at this writing, and feel safe in stating that all engines, in this country at least, are fired by one man.

(3) This is rather too much for us at this long range. Why not address the chief train-despatcher of the road in question who is in your immediate vicinity?

I. C. R., Seward, Alaska.—The question of the number of brakemen to be employed on freight-trains is for State or local decision, and does not particularly interest the Interstate Commerce Commission. The work of this body is particularly connected with the safeguarding of employees and the traveling public, and freight traffic.

J. V. G., Akron, Ohio.—It is claimed for the gyroscope, monorail car, that it cannot leave the rail from any cause other than a break, or failure, of the rail itself. A failure of the gyroscope is intended to be offset by appliances, automatic in action, which will prevent the overturning of the car.

WILL a locomotive pull more in the forward motion than in the back motion; and, if so, what is the reason for the difference?—J. M. C., Havana, Cuba.

Provided the adjustment of the valves is the same for both motions, and this is the usual practise, there should be no difference in the hauling capacity of the locomotive, whether run ahead or backward. You will note that switching-engines do their work, no matter which way headed.

B., GASSAWAY, West Virginia.—Such an order as you quote is quite unusual, and we doubt if authority could be found for it in the Standard code. However, should No. 5 overtake extra 12 after having been passed, it would require an additional order for the extra to keep ahead, as we view it.

WHO owns the greatest number of miles of railroad, and who controls the greatest number of miles in the United States?—J. E. W., Peone, Washington.

We take your interesting question to mean the largest number of roads under single control, and this would be the Harriman lines, so-called, composed of the following:

Arizona and Colorado Railroad; Coos Bay, Roseburg, and Eastern Railway and Navigation Company; Corvallis and Eastern Railroad; Galveston, Harrisburg, and San Antonio Railway; Houston and Texas Central Railroad; Houston, East and West Texas Railway, and Houston and Shreveport Railroad; Iberia and Vermilion Railroad; Ilwaco Railroad Company; Louisiana Western

Railroad; Maricopa and Phœnix Railroad; Morgan's Louisiana and Texas Railroad; Nevada and California Railway; New Mexico and Arizona Railroad; Oregon Railroad and Navigation Company; Oregon Short Line Railroad; Phœnix and Eastern Railroad; Sonora Railway; Southern Pacific Company; Southern Pacific Railroad in Mexico; Texas and New Orleans Railroad, and the Union Pacific Railroad.

The total mileage of the above group is, approximately, thirty thousand miles.

WHAT is a "bending rolls" which I have heard mentioned in connection with boiler-shops? —C. T. R., Richmond, Virginia.

A machine for bending metal plates to a circular form, such as boiler plates. Three rolls are arranged in pyramidal form. The two lower rolls are generally geared together, and the upper roll runs free, but is provided with means for vertical adjustment, and is also arranged so that it can be swung out of the way to allow the removal of the piece which has been formed. By changing the distance between the upper roll and the lower rolls, plates can be bent to varying radii of curvature.

WHAT is the heaviest narrow-gage locomotive built, and what kind is it?

(2) Is a compound locomotive stronger than a simple-expansion engine, provided that both are of equal weight?

(3) Are there any narrow-gage Pullmans built, and, if so, how many compartments are there and how arranged?

(4) Are any chair-cars built for narrow-gage roads, and how many will they seat?—C. W., Greeley, Colorado.

(1) Address H. K. Porter & Co., locomotive builders, Pittsburgh, Pennsylvania, who are in a position to give you definite information. Since the general widening of narrow-gage roads our records are somewhat hazy regarding that class of power, but the above firm has turned out many of them, and will no doubt be pleased to advise you.

(2) A comparison of the performance of compound freight-locomotives with that of simple, or single-expansion freight locomotives, as included in the report of the tests made on the locomotive testing plant of the Pennsylvania Railroad at the St. Louis Exposition, in 1904, were very favorable to the compounds. For a given amount of power at the draw-bar, the poorest compound showed a saving in coal over the best simple, averaging above ten per cent, while the best compound showed a saving over the poorest simple not far from forty per cent.

It should be remembered, however, that the conditions of the above tests, which provided for the continuous operation of the locomotive at constant speed and load throughout the period covered by the observations, were all favorable to the compounds.

Directly answering your question, it may be said that the compound locomotive, at least, so far as these thorough tests established, was "stronger" on the draw-bar pull than the simple engine; the steam pressures being equal—compared with simple locomotives doing the same kind of work—compounds show a saving in coal and water of from twenty to thirty per cent.

Stated in another way, the compound develops from twenty to thirty per cent more power than the simple engine of the same type, consuming an equal amount of fuel and water.

Liability to breakdowns and cost of repairs are items that usually show a balance in favor of the simple engine; but where intelligently handled and maintained the advantages of the compound outweigh these defects.

(3) and (4) All elaborate narrow-gage passenger-car equipment, including the types which you mention, disappeared with the application of standard gage to the Denver and Rio Grande road and to the Mexican National Railway. When narrow-gage roads, these two lines had a splendid equipment of Pullmans and chair-cars, and these were so admirably proportioned that it was difficult to realize the difference in the gage of track. The narrow-gage roads generally are fast disappearing. Read the article, "The Riddle of the Gage," in this issue.

WHAT is a Mikado type of engine, and are there any in use in the United States?

(2) Which road handles the most freight, the Santa Fe or the Southern Pacific?

(3) Where is the steepest broad-gage grade in the United States?—J. M. J., Fulton, Illinois.

(1) It is known under Whyte's system of classification as 2-8-2, *viz.:* a two-wheel leading truck, eight connected drivers and a two-wheel trailing truck. While not a common design in American locomotive practise, they are by no means a rarity in this country. The Northern Pacific Railroad has many fine examples, particularly in its 1500 class. These engines have cylinders 24 x 30 inches, working steam pressure, 200 pounds per square inch; diameter of drivers, 63 inches; weight on drivers, 196,000 pounds. Total weight, 259,000 pounds. A Mikado locomotive is no more than a consolidation, 2-8-0, with the addition of a trailer which permits a wider and deeper fire-box.

(2) The reports for this year are not yet available, but there is little difference between the two in total tonnage handled.

(3) It is said to be over Raton Mountain in New Mexico, on the Atchison, Topeka, and Santa Fe.

J. E. O., Chanton, Iowa.—The Long Island Railroad does quite a freight business, as is indicated by its possession of 1,669 freight-cars.

(2) In combination with the Pennsylvania Railroad the electrification extends from Harrison, New Jersey, to Sunnyside, Long Island.

(3) There are quite a number of Mallet articulated compound locomotives east of the Mississippi River. The Erie has three, the Baltimore and Ohio one,

and the Virginian Railway, the last enterprise of the late H. H. Rogers, is well stocked with them for its heavy tonnage hauling.

H. B. W., Pittsburgh, Pennsylvania.—You might address W. W. Slater, signal engineer, Southern Pacific Railway Company, San Francisco, California, in connection with the matter on which you are seeking information.

DOES a person require a permit to ride a bicycle with an attachment on a railroad, and to whom should application be made?

(2) Where can I obtain a small working model of the Stephenson link-motion, either made of cardboard or steel?

(3) Will a soft-coal engine burn hard coal as well, or do they require a special grate for hard coal?—K. M. H., Yarmouth, Nova Scotia.

(1) Application must be made to the division superintendent in charge of that portion of the road over which the applicant would like to use the bicycle. A severe penalty would likely be imposed on any one using the tracks of the railroad for this purpose without authority.

(2) Try *Railway and Locomotive Engineering*, 136 Liberty Street, New York City, New York.

(3) Anthracite, or hard coal, differs from bituminous, or soft coal, in the fact that it contains a much larger proportion of carbon and less of hydrogen, and that it consequently gives off very little or no coal-gas. Its combustion is, therefore, more simple than that of bituminous coal, as there is very little else than solid carbon to burn. It is usually burned on a very long grate, and, as the heat is very intense, the grate-bars are usually made of iron tubes, through which a current of water circulates so as to prevent them from melting. These tubes are screwed into the front, or tube-sheet, of the fire-box, and are fastened with tapered thimbles in the back ends, which are driven into holes in the back sheet, so as to make a tight joint around the tube.

As these tubes are so fastened in the sheets they are immovable, and it is necessary that some means be provided for drawing the fire from the fire-box. This is done by using solid bars instead of tubes at intervals, which rest on a support or bearing-bar at the front end and at the back end of the fire-box pass through tubes in the sheets through which they may be withdrawn when it is desired to remove the fire.

There are, of course, many variations in grate arrangements for hard-coal burners, but all are on the same general plan with water-bars.

C. H. M., Honolulu, Hawaii Territory.—No roads east or west of the Mississippi River have made a complete installation of the telephone system. A recent compilation shows five per cent of the total trunk-line mileage of this country to be operated by telephonic train-despatching circuits, but every road upon which it was then in use contemplated a further extension. It is hardly likely that the telephone will entirely supersede the telegraph, but, no doubt, it will be of some general application.

(2) Advance block signals are used by many roads in addition to the Pennsylvania. We might mention the Erie; Delaware, Lackawanna, and Western, and Lehigh Valley among those equipped either as a whole or in part.

(3) and(4) For books apply to *Railway and Locomotive Engineering*, 136 Liberty Street, New York City, New York, or to *Railroad Age-Gazette*, New York City, New York.

(5) Your question is not sufficiently explanatory regarding the relative positions of the engine, the switch, the tower, and the signal bridge. The way we view it, however, the movement must necessarily be made by hand signals under the protection of a flag. We regret that you did not enclose a rough sketch or diagram of the above positions, as such points are always of much interest.

(6) In this country, the flagmen must always go back the distance required by the company's rules to protect the rear end of his train whenever an unusual stop is made, and irrespective of whatever system of block signals may be employed. Applying such rules to the situation which you depict, the flagman would or should pass the home signal over one thousand feet.

WHAT is the best method to employ in running over the valves of the Corliss system on a locomotive?

(2) What is the best method of getting the port marks of engines with inside admission valves without taking them out of the valve-chambers?

(3) When renewing new cylinders is there any possible way of chipping the saddle without first putting the cylinder against the smoke-box and scribing it off?

(4) What is the best method of turning an axle in a lathe in regard to the size of the hub, so that it would press in with about ninety tons?

(5) What road was the first in this country to introduce the Walschaert valve-gear, and which road has now the most engines so equipped?—T. J. M., Havre, Montana.

(1) Never heard of the Corliss valve-gear in connection with a locomotive engine, although it is, of course, a lifelong friend in stationary engine practise. The Stephenson link motion, the Walschaert gear, and the Joy gear are commonly employed for the purpose of actuating the slide-valve of engines in this and foreign countries, but there is another less used called the Gooch valve motion which may be the one to which you refer. In this latter valve motion the link is hung with its curvature reversed to its usual position, and, in some cases, is driven by eccentrics on an axle ahead of it. If you will send a rough sketch of the motion which you have in mind, we will quote the approved practise in making adjustments.

(2) The best method is to take the valve out and do the job right. You can, however, push the valve against the front exhaust port, mark the steam in that position, and, if you have the valve and port dimensions measure for the rest of it. All such

practises, however, are unsatisfactory, arising from the liability to error when so many sizes are being added.

(3) A fair job can be done by making a template from the old cylinder saddle, which you have removed, assuming, of course, that you have reference to repair work. For instance, applying one new cylinder to an engine. In the instance of new work, it is advisable to put the cylinder up and mark it off. The editor of this department, however, does recall a device for this purpose, which he noticed in the shops of the Baltimore and Ohio Railroad over twenty years ago. It was a wooden structure, shaped like an inverted "T," the bottom being curved to the inner curve of the smoke-arch to which the new cylinders were to be fitted.

From the upright part of the inverted "T" a pendulum scriber was hung and adjusted to exactly sweep the *outside* curve of the smoke-box. This being effected, the machine was removed from the smoke-box and set up on the saddles of the two new cylinders, which, of course, had been previously bolted together. It only remained to scribe the front and back saddle-flanges with the pendulum mentioned, the length of which had been determined as above explained.

These lines so scribed on the front and back saddle-flanges were continued by means of a straight edge on the side-flanges, and they were chipped. The writer's recollection is that they got very good results from the device, although it has long since been abandoned.

(4) It depends entirely on the metal composing the wheel. The proper allowance to be made is largely, if not entirely, a question of judgment, experience, and the "feel" of the calipers.

(5) The Walschaert valve-gear was first introduced into this country in connection with the Baltimore and Ohio locomotive No. 2400, built at the Schenectady works of the American Locomotive Company in 1904. This engine was also the first Mallet compound. After much experimenting, the Walschaert gear received the unqualified indorsement of A. W. Gibbs, general superintendent of motive power of the Pennsylvania Railroad, and, in all probability, that road has more locomotives so equipped than any other, although the New York Central lines are making a general application.

Space limitations forbid giving a description of the Baker-Pilliod valve-gear, as much as we would like to oblige, and the same applies to your request in regard to a valve-setting problem in the Walschaert gear.

The editor of THE RAILROAD MAN'S MAGAZINE, however, advises that in connection with the latter motion an early article will deal with the subject from every angle, and in particular will thoroughly explain the procedure in usual and unusual cases, as indicated by the marks on the valve-stems.

A. A. L., Berea, Ohio.—The engines of the Boston, Revere Beach, and Lynn Railroad are of the Forney type, equipped with Joy valve-gear.

(2) Eight-wheel type, 4-4-0.

(3) The locomotive classification was published in this department, July number, THE RAILROAD MAN'S MAGAZINE. It was republished in tabulated form in our August number, page 480.

(4) Cannot say exactly where you could get photographs of old and modern locomotives in this country.

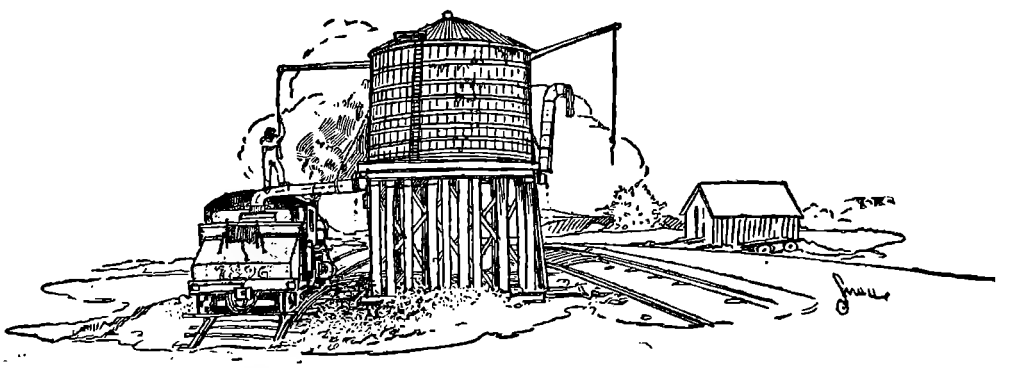
(5) Quite a few diamond stacks are still seen on Mexican railroads.

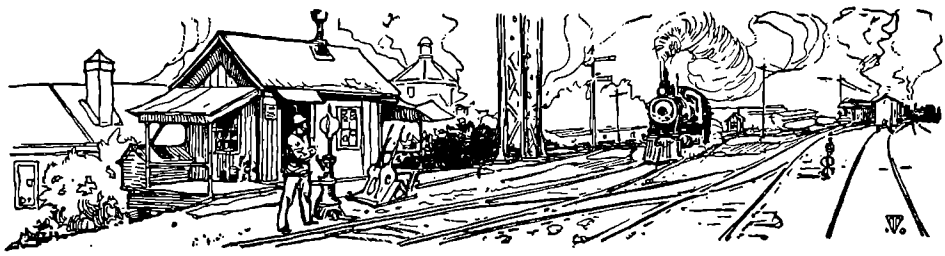
(6) Single-driver locomotives disappeared many years ago from American practise. They were, of course, the earliest type introduced into this country, but rapidly gave way to the American, or eight-wheel type, which remained the standard for passenger service for over half a century.

C. B. B., San José, California.—To secure the information which you desire regarding the Long Island Railroad, we would suggest that you take up the matter direct with Ralph Peters, president and general manager, Long Island City, New York.

WHAT is the longest bridge in the world?—F. M., Hoboken, New Jersey.

The longest bridge in the world is at Sangong, China, and is called the Lion Bridge. It extends five and a quarter miles over an arm of the Yellow Sea, and is supported by three hundred huge stone arches. The roadway is seven feet above the water, and is enclosed in an iron network.





Told in the Smoker.

BY OLIN CRAWFORD.

Some New Experiences of the Knights of the Grip that Will Make Other Travelers Hold On to Their Buttons and Ask for the Pedigrees of Their Smoking-Compartment Acquaintances.

AN INTERRUPTED GAME.

SOMEBODY in the group in the smoking-compartment of the sleeper had just unburdened himself of a mournful tale of how he had fallen a victim to the game of a card-stacker in Chicago.

"That's about the only kind of bad luck that never reached me," said George Munroe, who travels for a Brooklyn hat factory; "but there was a time when it gave me a pretty close call.

"There were three of us. Sol Goldman, out from Bond Street with 'the finest shirts on earth,' and Fred Kress, whose specialty is razors, were the other two. We were all trekking for home by way of the Big Four, when Kress suddenly caught the poker fever.

"Sol thought a four-hander would be more interesting, and somewhere in the train he managed to dig up a stranger who had such an open, honest face that we all thought he was the real goods.

"We hadn't dealt half a dozen hands before the three of us began to tumble to the fact that the stranger was no spring chicken at the game. He was wiping up everything on the board.

"Luck! Why, with the luck he had, he could have gone out in his back yard and discovered a gold-mine. Before long he had us all so flustered that we wouldn't bet more than a white chip on a straight flush.

"We gradually got a strong hunch, however, that the stranger wasn't playing a straight game, and we made up our minds that we'd better quit if we didn't want to live on bananas the rest of the way home.

"'I've got a bad headache,' Sol was saying, by way of getting out, but he didn't finish the sentence. He didn't have to, for the stranger suddenly slammed his cards down on the table and jumped to his feet, quick as a cat. In a second he was down the aisle and disappearing at the end of the car.

"We were at a station at the time, taking on passengers. Pretty soon the train rolled out, but he didn't come back. We waited and waited. A quarter of an hour went by, but still no stranger.

"One of the passengers in our car was a fat man who had just got aboard. He wanted to know what the stranger looked like. We told him he was a tall, slender chap, with black eyes and a scar on his chin. For a moment he looked as if we'd handed him a big surprise.

"Then he began to dig into his inside pockets. He pulled out a poster with a man's picture on it—and it was the picture of our missing fourth hand. Perhaps you've heard of Roy Smith, who broke out of Joliet, where he'd been sent for grand larceny.

All-round gambler and bad man, and one of the slickest card-sharps in the West. Well, he was the man.

"The fat man? He was from the Chicago Central Office—Chicago or Buffalo, I forget which. Anyway, he was a detective, and our fourth hand must have seen him coming in at one end of the car just in time to get out at the other.

"I was the banker of that game, and I owe that runaway convict twenty-two dollars and thirty cents. Sol and Fred Kress have been after me for years to split it up between us, but I say: 'No; that Western crook may come for it some day—if the police don't get him first."

PETERS'S HAIR-RESTORER.

"SPEAKING of fat men," remarked Harvey Small, one of the roadmen from the Broadway clothing district, "some of you boys must know Harry Peters, the shoebagger. Perhaps you don't know how he got his experience as a roadman. It was selling hair-tonic—his own preparation. Quite a jump from hair-tonic to shoes, but I guess he likes shoes better. There's all kinds of bad luck goes with hair-tonic.

"That particular preparation of his was more than a tonic. It was a hair-grower, guaranteed to grow hair on bald heads inside of a month. To hear Peters tell about it, you'd think it would make frayed haircloth furniture as good as new, or a billiard-ball look like a powder-puff in a week. You could sprinkle it on your mangy housecat, and have an Angora in thirty days.

"It was a wonder of wonders, that preparation—either that, or Peters was a wonder as a truth-destroyer. He'd put a couple of thousand dollars—all the money he had—into his hair-grower; figured on making a million or so, and retiring. But, as I said, there's no luck in hair-growers.

"The first way Peters exhibited his business sagacity was in getting the top of his head shaved as smooth as ivory. Then he started out on the road with his preparation. The drug-store people wanted to know why his restorer wouldn't grow hair on his own bald head. Peters told 'em to wait a while.

"It was a brand-new remedy, he explained, and he hadn't had time to experiment with it in his own case, though he'd seen it work wonders in others. He told 'em he soaked his own head in it twice a day, and was looking for quick results.

"He had been out on the road a few weeks, and began to double back over the same route. There was thick, black hair, half an inch long, all over his bald top. It was a brand-new idea in advertising, and it certainly made those druggists sit up and take notice.

"But the trouble with that game was that it wasn't good for more than one season. The druggists, finding the stuff didn't come up to Peters's prophecies, were all overstocked and wouldn't have anything more to do with it. Then some man down South claimed the stuff had turned his hair from red to green, and sued Peters for ten thousand dollars' damages.

"What became of the suit I don't know, but Peters was out hustling for a job before long. That hair-grower ruined him. That's why he's selling shoes to-day. He's grown as bald as a bat, but it's no use trying to get him to experiment with any hair-growers. He can't bear to hear 'em mentioned."

A MATRIMONIAL GOLD BRICK.

THE ensuing talk about bald heads and their causes reminded Frank Rolfe, a Newark hardware salesman, of Sam Lewis, who used to travel for a Broadway millinery house, and whose cousin he had met a few days before in St. Louis.

"Sam was a living illustration of the fact that it's worry that causes baldness," declared Rolfe.

"After his unfortunate matrimonial affair he grew as bald as an eagle. That marriage of his shows that a man ought to stick strictly to his employer's business when he's on the road. But Sam always had an eye out for the ladies, and was always talking about how he meant to marry rich and retire.

"'Any man can do it,' he'd say, 'if he's only got sense enough. The world is full of single women with fat bank accounts, looking for husbands. Look at all the rich men's daughters, and at all the rich widows! There must be a million of 'em. It's a good deal easier to propose to one of 'em in the space of ten seconds than it is to work for twenty years selling goods.'

"One day while Sam was running west on the Central he saw a good-looking woman in the next seat who had a pint of diamonds sprinkled over her. She had a fur coat that must have cost a mint of money, too, and it was easy to see she must be well fixed.

"He kept his eyes glued on her and on

the fur coat and the diamonds, and, as he couldn't see any wedding-ring, decided she must be single. He got a chance to get into conversation with her, and before they got to Chicago he'd proposed and had been accepted. They were married the very next day.

"Sam sent back word to his friends that he'd married a million, and he began to think about throwing up his job. But it wasn't half a day after the wedding when his bride told him she had a confession to make.

"She'd been married before and had divorced her husband. He had to pay her a good, fat alimony, but that would stop, now that she'd married again. Outside of the alimony she didn't have a cent, and her diamonds were most of 'em paste, but she was sure Sam hadn't married her for mercenary reasons, and wouldn't mind about that.

"After Sam had pretty near worried himself to death over that development, she announced she'd got another confession to make. He must be prepared to meet her children. She had five of 'em!

"'Well, you don't suppose I've got to support another man's children, do you?' gasped Sam. 'What's the matter with his supporting 'em?'

"'But they're not his,' she explained. 'When I married him I was a widow, and I had 'em all then.'

"To add insult to injury, that divorced husband met Sam a while after that, and told him he wished him joy—that he had to thank him for lifting a load of trouble off his shoulders."

CUPID FOILS A ROBBERY.

"THERE was the case of Tom Wales," said Terrence Murphy, of Maiden Lane. "He was running out of Detroit one day, when he fell in with a nice-looking young fellow, who told him he was traveling about the country for pleasure. By the time they got to Cincinnati, the stranger knew Wales's line and had a pretty good idea of the value of the goods he was carrying. As a matter of fact, Wales had fifty thousand dollars' worth of jewelry locked up in a big case.

"They both went to the same hotel. The next morning Wales called a cab to take him to the train, and, while the cab was waiting outside, he gave a porter a quarter to watch the jewelry-case in the lobby. The case was as big as a small trunk, so there didn't seem to be much danger of losing it. As soon as Wales's back was turned, along came the new-made friend, told the porter, who had seen the two together, that he would take the case to the cab, hurried outside with it, jumped into the cab, and told the cabby to drive somewhere.

"Did they get him? They haven't yet. He's one of the few crooks that ever slipped through the far-stretched net of the Jewelers' Protective Association. But his capture isn't so necessary, for the jewelry has all come back. Two months after the robbery, more than half of it came in a lump from some place in the West.

"Then came a letter without a signature explaining that the writer was the thief who had taken the jewelry and that he'd fallen in love with a nice girl and was conscience-stricken. He told her the whole story and had promised her he'd send every bit of the stolen jewelry back. The rest of it came piece by piece, and it took more than a year before it all got back to Maiden Lane. Evidently he'd hocked part of it, and had been getting it out of pawn in instalments as fast as he could afford it."

THE ABSINTH DIAMOND.

"I KNOW a better Maiden Lane story than that," said a man with an enormous black pearl in his tie.

"It's the story of the absinth diamond. If you know anything about jewels, you'll know that the absinth diamond, when it's of any size and perfect, is one of the rarest and most valuable stones in the world. It's just about the same dusky whitish green as absinth, and there's a weird light in it that's enough to give a man the jim-jams.

"Martin Crosby, who's retired now, but was for a long time a well-known diamond salesman, was riding in a day car on the Santa Fe in Colorado, in 1893. He noticed, in the next seat, a shabby young chap wearing a sombrero and looking like a ranchman.

"The next moment, Crosby's eyes pretty near popped out of his head with surprise. In the tie the young man was wearing was an absinth diamond of at least three carats. Crosby was over talking to him inside of thirty seconds. He got a good long look at the stone, and he was dead sure it was genuine. But the mystery was, how did this shabby young ranchman come to have it?

"Crosby's firm had been looking for just

such a stone. He asked if the young man wanted to sell it. Yes, he thought he would, if he could get a hundred dollars for it, for he was broke. Of course, it looked like a case of thief right away. But Crosby followed the man up; found that he was a young Englishman with a wife and baby, and that they were almost starving to death out on a little ranch where the irrigating ditch had run dry and the crops had failed.

"The diamond was an heirloom, the young man's only inheritance, for his parents' fortune had been swept away before he came to America. Crosby investigated, and was convinced that the story was true. But he wasn't small enough to take advantage of the man's ignorance of the stone's value, and after getting in touch with his firm he offered him seven thousand dollars for it. The money came just in time to save the Englishman's farm from foreclosure.

"Seven years went by. One day that young Englishman appeared in Maiden Lane. He had become one of the richest wheat-farmers in Montana, and he had come East to hunt for his absinth diamond. At length, he found it in a store on Fifth Avenue, where, for years, it had been lying in the safe. He paid twenty thousand dollars for it.

"'I promised my mother, who's been dead many a year, that I'd never part with that stone unless I had to,' he explained. 'I sold it because I was down to my last dollar, and didn't want to see my wife and child go hungry; but I always meant to get it back.'"

WHEN THE SUN WAS LATE.

DOES anybody remember Cy Burrill, the alarm-clock man? No, he didn't sell alarm-clocks. Shirts were his line. But he practised with a vengeance the theory that the early bird catches the worm, and he always carried an alarm-clock with him to rout him out of bed at the most unearthly hours. I will take my oath that the full extent of his personal baggage was that alarm-clock and a comb.

"I had a grudge against Cy and his old clock, for I once shared a room in a crowded hotel with him, and had been routed out by his buzzer before daylight. Lying over a night in Ashland, New Hampshire, I ran across Cy and a fellow named Joe Wetherbee; and after Cy had gone to bed—as usual with the chickens—I told Joe that story.

"'Well, here's your chance to get even,' said Joe. 'Cy's going to take that six-thirty train down to Nashua in the morning. He's a sound sleeper, and we'll go up and twist the hands of his buzzer ahead about four hours and a half, and he'll get up in time for the 2 A.M. There are no locks on these country hotel doors.'

"Joe and I waited up to see our scheme work. About ten minutes of two Cy came scurrying down-stairs in a hurry, with his clock under his arm, for he'd overslept, he thought. No proprietor around; no breakfast, but he didn't have time to wait.

"He lit out for the station, and got there just as the two o'clock train rolled in. He'd been wondering why in thunder it was so dark. We were down at the station, to make sure that he got away, and, as the train pulled out, he stuck his head out of the window, stared up at the stars, and said: 'By gum! It's the latest sunrise I ever saw!'"

A GRATEFUL HOBO.

"IT'S surprising how many romances a man tumbles into on the road," observed George Munroe, who had told the poker story. "Coming down from Seattle on the S. P., our train stopped for water in the woods near the California border one morning, and some of us got out for exercise.

"A ragged, soot-blackened young fellow scrambled down from the roof of one of the sleepers where he'd been riding all night, and asked one of us to get him a glass of water. He gulped the water down like a thirst-crazed man in the desert, and I found out that he hadn't eaten in about twenty-four hours.

"I went into the diner, and when we made our next stop I called to him, and he came scrambling down. I handed him half a dozen sandwiches and half a dollar. He was the most grateful chap I ever saw, and he went at those sandwiches like a famished wolf.

"About a year after that, I drifted into Goldfield on a round-up of the Nevada hat dealers. I had lost my roll somewhere in the train. I was wondering what I was going to do for money.

"I was getting a bite in a restaurant, and was telling my tale of wo to a chance acquaintance at the counter, when a young chap tapped me on the shoulder and remarked,' 'I can help you out with a hundred or two.'

He went to the cash drawer and pulled out a roll of bills. 'I'm making barrels of money feeding miners in this boom town,' he said, 'so you needn't think I can't spare it.'

"It was too much of a mystery for me. I was dazzled. 'Is this the way you usually treat strangers out here?' I asked.

"'Well, sometimes,' says he. 'If you'll take a good look at me, perhaps you'll remember the fellow you saved from starving on the S. P., last year.'"

Just then the porter put his head in.

"Can any of you gents change a five-dollar bill?" he inquired.

"I can," said Harvey Small, digging into his pocket and taking the fiver. "Here's four ones and a half-dollar. You can keep the other half-dollar for yourself."

"Thanks, boss," returned the porter, and he went away smiling gratefully.

"Aren't these porters wonders!" cried Small. "I've worked that game time and time again, and they always bite." But the porter came back.

DOING THE SAMARITAN ACT.

"IT'S pretty tough for a man to be stripped of all the coin he's got when he's on the road," remarked Tom Bowles, the underwear man.

"I've had that experience myself, and I know. But it's harder still on a woman. She simply goes into hysterics in such a plight. I've always had a notion that it was a case like that that boosted Jim Corning to the job of manager of one of the biggest concerns in Chicago.

"Ten years ago Jim was on the road for the house he's with now. He was a young fellow, just breaking into the business. Once, as he was going into the diner for breakfast on the C., B. and Q., he noticed an old lady crying. He asked the conductor about her, and learned that she had been robbed of all her money during the night.

"He went over and spoke to her, and she told him she was going through to Denver, and was worrying over how she was going to buy food on the way. He pulled out twenty dollars and insisted on her taking it as a loan. She consented, and took his name and address.

"A few days later the money came back to him in the mail, and with it a note of thanks from his boss, who explained that it was his mother he had helped. Jim began to climb right up toward the top in that house from that time, and I guess it was largely because the boss remembered what he'd done."

"Those sympathetic yarns!" growled Terry Murphy. "They don't go with me—not since I lent a girl in the same fix ten dollars and found she'd been working that game on all the roads in the country. Of course, if I'd been born lucky, like Corning, she'd have turned out to be the daughter of my boss; but I must have come into the world under some other kind of a star."

DISINFECTING PASSENGER CARS.

German Railroad Uses Original Method of Ridding Trains of Vermin and Deadly Bacteria.

BETWEEN the ordinary method of cleansing railway passenger-coaches with the house-cloth, broom, and the cushion-beater, ordinarily in vogue in this country, and the scientific processes developed in Germany, there is all the difference in the world. Perhaps the conditions of international traffic in Europe account for the advance in European methods, for it has been the experience of German railroads that cars sent into and returned from Russia, for example, are often infested with vermin. These could not be exterminated by the ordinary precautions, consequently apparatus has been devised for accomplishing for railway coaches what has long been done for steamships.

At the Potsdam shops of the Prussian state railways a huge cylindrical structure has been provided, into which the car is run. After the heads have been hermetically closed the interior is heated to a temperature of from 114 to 122 degrees Fahrenheit, the heat permeating into the cushions and into all upholstered parts. At the same time the air is pumped out of the cylinder, the partial vacuum and the heat together destroying any trace of animal life, germ as well as insect. If a still more thorough disinfection is desired formalin is also introduced.

The total weight of the apparatus is about three hundred thousand pounds, and it is provided with special inspection holes for the reading of the thermometers on the inside. It has been found that the entire process of heating, obtaining the partial vacuum, etc., requires about two hours' time. It is also claimed that the polished wood surfaces of the cars suffer no injury from the process.

BEYOND THE DRIFTS.

BY J. R. STAFFORD.

Engineer Millburn Ran the Snow Blockade, but Death Was Waiting to Take the Throttle.

TO Millburn the warmth of the red-hot, cannon-ball stove in the six-by-fourteen office at Damon Station, after five consecutive hours in the numbing cold of his engine-cab, was the next thing to paradise. Twisting at the icicles in his gray mustache, he leaned gratefully to the heat, and his satisfaction was supreme, for because of the snow blockade, Damon was now the end of the run, and the icy gale that roared outside would not get another chance at him that night, at any rate.

It had been a hard day, one of the worst in many winters on the prairies of the Far North, and he and some of the oldest men on the division pay-roll, who had been called, out of their turns, to make up the crew for 96, had suffered intensely with the increasing cruelty of the weather.

Presently the station-agent, a dull fellow whose eyes made the old engineer think of watery pools, frozen to the bottom, came toward him and thrust out a yellow paper.

Supposing this to be the regular order for a lay-over until morning, Millburn held out his right hand for it, while with his left, he mechanically fumbled in his blouse pocket for the bit of pencil with which he would scrawl his O. K. But as he unfolded the sheet he read:

> Cut out everything but loaded coal-cars, engine 96, at Damon. Proceed with said coal-cars and snow-plow to relief of cold sufferers at Devil's Slough.

"O. K. that er not?" the agent inquired.

Gazing into the cold, sullen eyes of the man before him, the engineer felt himself shivering as he replied: "Wait a minute. Wait."

He wanted time to think. This order decreeing that he and his fellows must struggle in the storm against those forty-foot drifts, with only a single engine and a plow, was absurd enough to have originated in the mind of this loutish agent. Also, it was heartless enough to have emanated from the same brutish source.

Knowing, however, that an order does not come from headquarters except with a very definite purpose behind it, he realized instinctively, that this one had been sent out only for the purpose of silencing newspaper agitation against the North Orient Railroad because of its failure to relieve, at once, the suffering at Devil's Slough, caused by the storm.

In the light of this reasoning, he also saw that he and his gray-bearded fellows had been drawn for the run, because being over the age limit they would not dare refuse, lest they should be discharged and cut off forever from railroading, and a livelihood.

Millburn gazed thoughtfully at his age-worn fireman, Johnson, and he noted, too, how clearly the years had wrought havoc with Brakemen Smith and Clark. Oakerson, the conductor, had only recently recovered from an attack of pneumonia, and was still weak and thin. Knowing that for the sake of their families these four men would obey the command to go up into the freezing drifts where, beyond all doubt, permanent disability and perhaps death awaited, his heart went out to them in pity.

A desire to save them came to him, and as he racked his brain, a plan slowly took shape. It meant the end of his own railroading; but, after all, his suffering would not be nearly as poignant as theirs.

"I won't take 96 any farther," he said finally in a quiet tone.

The mouth of the agent gaped wide, but the eyes of the four, vaguely comprehending, beamed approval.

A scuffling noise came from the other end of the room, and out of the deep shadows there, a scarecrow of a man limped forward. His hands were like swabs of dirty rags, his nose and ears were black and peeling, and his cheeks had the metallic hue of broken iron, but his eyes glowed with a light that showed a mighty purpose behind them.

"Mister," he said, coming close to the engineer, "I reckon it were me that got ye into all this trouble. I mean I got ye into it because this here agent wired 'em as I ast him to. I come out from Devil's Slough, ye see. Them people up there is a needin' help mighty bad. They h'ain't got no coal nor no wood nor no nothin'. The outsides and the insides of all of them houses but one up there, is gone, and the inside of that one were a going when I left, jist to make a little fire for the chillun to hover over.

"Mister, they's wimmin an' babies a freezin' up there. Yes, sir, they air a freezin' to death, slow like, while you an' me is warm and comfortable by this stove."

He put up his hand to shade the light from his frost-fevered eyes and then went on:

"And me a seeing that, were what made me come. I 'lowed that if I could make it out a-foot, other men might think they could go in on a train.

"I heerd ye say ye wouldn't go no furt'er. Prob'ly ye've a wife an' babies of yer own at home; but, mister, if they wuz up at Devil's Slough, and every time ye shet yer eyes ye seed 'em a freezin' there, as I kin see mine now, ye'd simply have to go. If ye couldn't he'p 'em all alone, ye'd hunt as I be huntin', thinkin' that people with no fault of their own, shorely cain't git past help. An' ye'd come freezin' here as I come and ye'd beg as I'm a beggin' now for he'p."

The engineer looked again into the faces of his fellows and upon their straightening forms, but this time, in the light of his kindling sympathy for the sufferers at Devil's Slough, the sacrifice seemed more worth while.

"We better try," he said quietly. "Yes, we got to try."

Then withdrawing the pencil from the pocket of his blouse, he scribbled his O. K. upon the order.

Forty minutes later, with seven cars of coal somewhere in the whirling night behind him, and with the crew and the half-frozen man crowding his elbows in the narrow cab,

"O. K. THAT ER NOT?" THE AGENT INQUIRED.

Millburn opened the throttle, and 96 was on her way in the forlorn hope of reaching Devil's Slough before it was too late. The snow-flakes danced upon his cab-panes, hemmed in by the black of the night beyond, and he watched until it became a thick white veil that cut off even the darkness.

He swept his hands upward and sought to climb. With infinite toil he gained a few inches, but his arms stiffening as if age had struck them, he slipped slowly back to the bottom, and staggered past the wheels, up the steps into the cab.

"I don't know how thick it is," he said.

"PROB'LY YE'VE A WIFE AN' BABIES OF YER OWN."

He thought of his wife and children at home, and then of the women and of the babies at Devil's Slough. He shook his head, but he opened the throttle a little wider.

After a time he felt an increasing pressure of the snow against the plow. Then suddenly the cab reeled backward, and he knew they were stuck fast in a mighty drift.

Having shut down, he lifted the storm-curtain which hung between the tender and the cab. The icy whirl filled his eyes completely, and the cold stung his nostrils and his ears. Under the blindness and the sharp pain, he hesitated, until, getting his bearing, he dropped from the steps into the snow. Feeling his way, he floundered past the drivers, the pilot-wheels, the flag-standard, and then his shoulders struck against a solid bank in which the snow-plow was embedded.

"It may be a whole lot, and then, again, it could be nothin' at all."

Reversing, he backed and backed until the distance for a good run lay between them and the hidden wall. After waiting five minutes for a higher boiler-pressure, he opened the throttle for the plunge ahead. Beneath the wheels the rail-joints rattled, then clicked rapidly to the flying speed. Again the cab reeled backward; this time with a thunderous hammering sound as the drivers settled back upon the rails.

A second time he reversed, and a second time, with higher pressure, he hurled forward. Again came the impact, and again the thunderous blows of iron on iron beneath them. Suddenly the cab settled lower and lower, and he knew that the rail under the toppling mogul had given way.

Turning to Oakerson, he said: "We got to have shovelers. Go back to Damon and ask for the section crew." As the old conductor obeyed, he began getting out the jack-screws and the bars.

After two hours, with the help of all hands except the fireman, who stayed above to keep the water-pipes from freezing, he had the engine once more level, and after another two hours, he had ripped a good rail from some distance behind the train and put it in place of the broken one. Then he took out the jacks, and 96 was on her feet again, with her only way of retreat cut off.

At noon Oakerson returned with six section-men, and an order from headquarters that the train be immediately returned to Damon.

"But when are they goin' to try to make it up to Devil's Slough?" Millburn asked.

"I dunno. The agent up there said that the papers this mornin' has it that the blockade is absolute, and that there couldn't be nothin' done until the weather cleared, so there's no need of rushin' now."

"Well, we're not goin' back."

"There's the order," Oakerson postulated.

'Yes, but we're not here because of any order. We're here because we want to help the people up at Devil's Slough. We've got force enough to try shovelin'. We better try. We got to try."

To this three of the section-men and three of the train-crew assented, and, with Millburn, they took their shovels and groped past the drivers, to begin their blind toil against the drift.

There, in the whirling chaos, their mittens and their clothing became crackling mail. Their breath froze in their beards, and their eyebrows were covered with ice, but always Millburn urged them onward with his own steadfast courage, and, obeying him, they saved themselves from freezing by desperate shovel-play. At length, when the day, that more resembled night, was disappearing under a darker swirl, he gave them leave to rest.

While they floundered, groping their way back to the cab, he went once more to the scene of their digging, and found, to his grim satisfaction, that they had made, perhaps, a hundred feet.

Returning to the engine, he worked an hour helping the fireman to get a head of steam, and they drove forward again into the narrow cut.

Then, after a supper of bacon and bread and coffee, cooked over a shovel of coals from the fire-box, he led them once more against the drift.

Six times that night he got a head of steam, and six times he drove the pilot an engine-length ahead.

But, with dawn, it seemed that his efforts must cease, for the wind, which all of the day before and through the night, had blown a gale, now rose to a hurricane.

Undaunted, however, he advised the men to keep on.

"We can't go back now," he said, "for the snow in the mouth of the cut is blocking us. We've got somehow to make it out, to-day, because the water won't hold out for steam another twenty-four hours, and mebbe them people up there can't hold out either. We've got to try some more."

So again he led them to the work, but the wind drove the clouds of fine snow into their nostrils, suffocating them as smoke. To save the men from strangulation, he led them up the incline to its very top, where he shouted, above the storm, "We daren't go back. We'll shovel here. The wind will help."

But here the cold was terrific. It looked all moisture up in frost, and the frost in turn disintegrated, and blew away in frozen dust.

Their ice-mail of the day before was turned to powder now, and through their coarse clothing the wind swept, as if upon their naked bodies. They dropped their shovels, and, covering their heads, settled down in the snow to die.

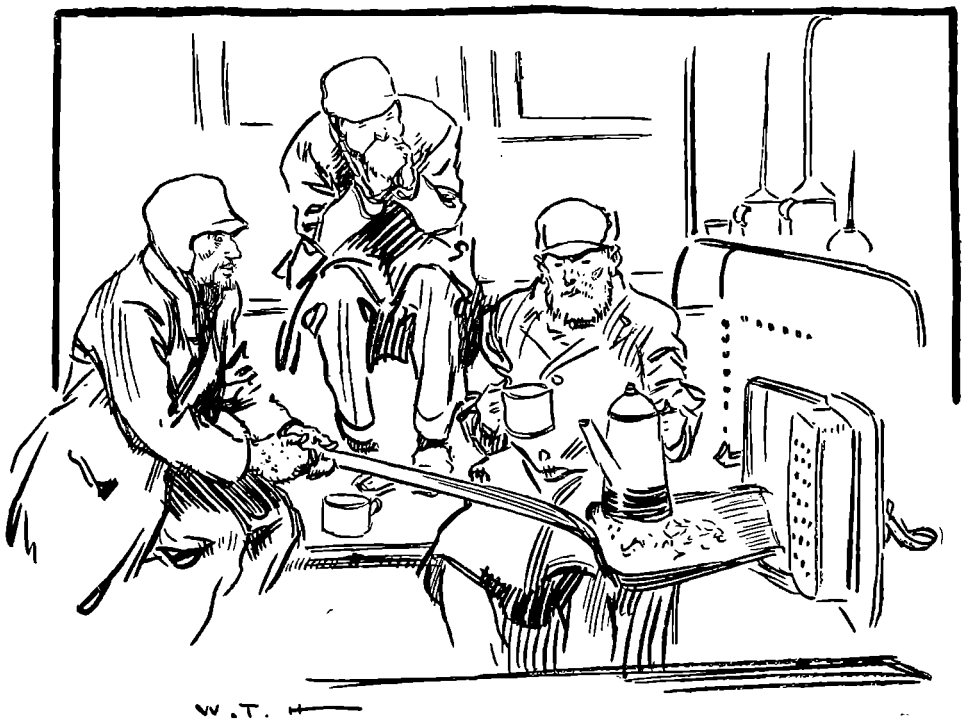
The engineer unfalteringly stuck to his task until his hands were helpless from the cold, and then, joining his fellows, he also waited.

Presently, however, as he felt the numbness creeping deeper and deeper, he was aware of a strange sensation—that of being moved. Then he heard the voice of Johnson shouting that they were being blown away, and in the next instant he knew that he was falling and sliding down a slope. Suddenly his foot touched something. He groped about, and, feeling a rail and a tie beneath him, he lifted up his voice in a shout that thrilled them through and through:

"It's swept the cut. It's swept the cut."

At that moment, as if some obstruction that had been restraining it had given way, the tempest surged against them with a force that threw them off their feet. He struggled to his knees, but, his hands and arms being powerless, he could not crawl. Again he waited.

Presently, in the white murk, he saw a



A SUPPER COOKED OVER A SHOVEL OF COALS.

black something show and disappear. It showed again, and he knew it for the crusted snow-plow at the head of the train which the wind was pushing toward them along the rails.

"She's comin'," he shouted. "Ketch 'er as she goes by."

Then, rolling from between the rails, he got to his knees, and when the cab-step drew alongside he encircled it with his helpless arms, clinging on until assistance came.

Inside the cab he brought life back to his hands by the torture of the fire.

"I daren't wait for the snow," he explained. "The way is open, and the water's goin' fast. We got to drive her on."

Then for twenty minutes he was busy with a thawing-torch over the water-pipes and the stiffened oil in the cups. When the steam was rising in the gage, he went to the tool-box for a heavy jack-screw, with which he crawled through the window of the cab and over the slippery jacket to the dome.

Having wedged the safety-valve so that it could not open, he went back.

"Now," he said to them, "everything is ready. We'll go ahead when the steam gets up. I don't want to be advisin' you what to do, but I can either make it on alone with the Devil's Slough man to fire, or else we can't any of us get through. There's just water enough if we don't lose a gallon. I've fixed the pop-off so it can't open and lose a drop. But if we hit another drift and the pressure's high, I reckon the boiler will bust. I suppose my hands will hold out if everything goes all right. You fellows can do what you want to. I expect the chances are better for your going back to Damon."

The brakemen both disappeared behind the curtain, but old Johnson stayed.

Presently the hand of the gage slipped up from sixty-five to seventy-five, from that to eighty-five. It jumped to a hundred, then to a hundred and twenty-five. It still crept higher, until it marked two hundred and fifty pounds pressure.

When it had gone twenty points beyond the safety-mark, the engineer opened his throttle.

Slowly the mogul responded to the heavy pressure in her cylinders. The lank of the trucks over the rail-joints presently became a roar that harmonized with the blast, and the smick-smack of the flying drivers told that their thousand-pound counter-weights were whirling along at the rate of fifty miles an hour.

Millburn, watch in hand, counted the minutes. Smiling into the faces of Johnson and

the man from Devil's Slough, he said to them: "I don't know but what we'll make it, after all. We must be gettin' somewhere close. I daren't risk runnin' by. You fellows fix the fire again, and cover up with the curtain, while I open the window so I can see where we are."

They fixed the fire and wrapped the curtain about them. They had snuggled under it on the floor when they felt the rush of the cold air sweeping from the open window. They shivered as they thought of the engineer sitting in the freezing draft, and often they called out to him, but on his assurance that he was all right, they would again lie down. In time they drowsed.

Somewhere, an hour or so later, Jonnson awakened with a start. The train had stopped. He flung off the curtain, and, running round into the gangway, found the firebox door cold. He craned his neck, and saw Millburn sitting in his seat staring straight ahead through the open window, into which no wind now roared.

"Millburn!" he called.

But Millburn did not stir.

The old fireman ran over and aroused his companion. Together they climbed up beside the silent engineer, and found him dead. There was a smile on his lips, as if his sightless eyes found a picture of comfort in the smoke that wreathed upward from the chimney of the one remaining house in Devil's Slough.

THE GOATS OF THE U. P.

THE Union Pacific Railroad has discovered a new use for billy goats, and every day at half a hundred stock-feeding stations on the line of the big railroad system, solemn goats with long white beards act the part of Judas, luring unsuspecting sheep to their doom. Little did the members of the Interstate Commerce Commission think when they made a ruling that live stock, *en route* from the great Western ranges to the packing-houses along the Missouri River, should not be kept aboard railroad trains for more than twenty-eight consecutive hours, that they would be responsible for the creation of a band of goats trained to ingratiate themselves into the confidence of innocent little lambs, matronly ewes, and stately rams and bring these down to their death.

But such is the case, and the Union Pacific Railroad has a flock of goats, each individual member of which can do better work along the lines for which it is trained than would be expected.

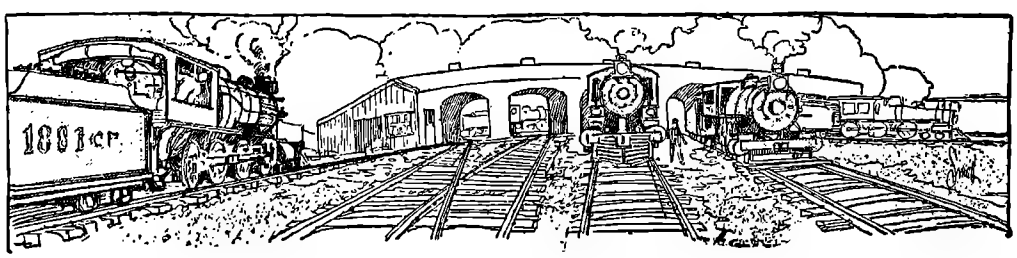
When the twenty-eight-hour law went into effect the Union Pacific found it necessary to build big feeding yards at numerous points along its line —in fact, these yards were installed about every twenty-five miles from end to end of the big system. During the shipping season that railroad brings hundreds of thousands of sheep from the great ranges of Wyoming, Colorado, Utah, Idaho, Oregon, Montana, California, and the Southwestern States to the packing-houses at Omaha. Under the new law it was necessary that these sheep be unloaded, fed, and watered, and then reloaded every twenty-eight hours.

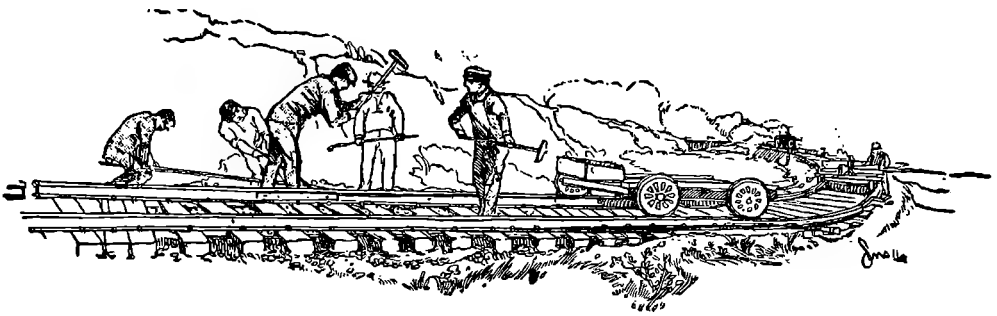
The railroad at first found it necessary to maintain a large force of men at each feeding station, it being found more economic to do this than to spend hours and hours loading and unloading a train. This cost money, and lots of it, but there seemed no means of avoiding the expense.

To-day, however, when a long line of stock-cars, each filled with sheep, draws up at a feeding-yard, a goat is sent up the chutes and into the car among the sheep. He quickly makes the acquaintance of the newly arrived animals, and then calmly walks out the door. True to the idea of following a leader, the sheep fall in line and march out behind old Bill.

When ready to reload, the goats are again sent among the sheep, with whom they frolic a few minutes, and then they start for the cars, followed by the sheep.

The feeding-yards are all equipped with electric lights so that cars may be loaded and unloaded at night, thus saving much time. When a train arrives at night, especially are the goats necessary. At such times they enter the cars when the sheep are lying on the floors, and butt the sleeping animals around until they are thoroughly awakened—and then they lead them out into the feeding-pens.—*Chicago Inter-Ocean.*





OLD-TIMER TALES—No. 7.

Small Beginnings of Big Railroads.

BY ARNO DOSCH.

RAILROADS, like all the other great factors of our modern civilization, underwent peculiar stages of evolution before reaching their present state of development. Some are apt to bring smiles to many of this generation, who find it difficult to reconcile twentieth-century wonders of steam and steel with the crude makeshifts of the past.

It is hard to imagine a great system like the Pennsylvania Railroad springing from the humble device of some timbers laid through the mud to form a roadway for a farmer's wagon.

How the up-to-date eagle eye would laugh if some one were to suggest that farmers be allowed to drive their teams to town over the railroad tracks, blocking all the freight and passenger trains, yet even this was once a daily occurrence on many big systems whose trains now run on mile-a-minute schedules.

The Wild Dreams of Early Railroad Promoters Whose Visions Grew to Realities after the Long Fight Against All Manner of Queer Opposition.

JOHN THOMPSON hopped out of bed one morning with an idea. It was one hour after daybreak on a chilly, damp day in the fall of 1809. The cold air blew up from between the cracks in the floor, but he did not mind. Since the first streak of dawn he had been wondering how he was going to get his potatoes and turnips to Philadelphia over impassable roads, when all at once out of his waking dreams an idea struck him with an uplifting force that shot him out into the middle of the room.

Pulling on his boots, he waded across his

slushy barn-yard and came to the public road, which was a quagmire all the way to the turnpike, and that was but little better. Instead of scowling at the knee-deep slough that passed for a highway, however, he smiled and cherished his idea.

A Road of Rails.

In a shed near by there were some rough-hewn timbers, and these he pulled out and dropped in two parallel lines along the road through the thick of the mud. Then he lifted the shafts of a cart and started the wheels over the tops of the parallel timbers. A month later he had built a track as far as the turnpike, and drove his cart easily down the middle, the wheels following the grooves.

The neighbors stopped to look at the contrivance, and chuckling contemptuously, whipped their plodding horses through the mire. But, as John Thompson beat them to town, he could afford to disregard their sniffs. In the hour of his triumph, he even ventured to predict that they would be hauling their produce to town that way before long.

He became so enamored of his idea that he talked of nothing else, and was dubbed a crank. He and his "railroad" became the joke of the community, and he was frequently regarded as being mildly insane. It made him an isolated man, but he did not seem to have cared much; though with his son it was different.

The son was a small boy in school at the time, and there he was made to feel the scorn that was shown his father.

He had spirit, however, and for weeks he came home every night with swelled lips and blacked eyes, until he had licked half the school and had been licked by the other half. Finally his parents withdrew him.

Listening to what his father said, he dreamed boyish day-dreams of building miles and miles of similar highways and vindicating his father. As he jogged along on the seat of a heavy cart, he even imagined an empire of such "railroads" that would control great cities, annihilate distance, and remove the curse of the country—bad roads.

It was only the day-dream of a boy without playmates, but it was the real beginning of the great Pennsylvania Railroad, with its 5,000 miles of track, its army of men, its 4,000 locomotives, and 164,000 cars.

John Edgar Thompson, the inventor's son, fared rather better than the rest. While he was still growing up, the first excitement over railroads swept the inhabited part of this country, and even the farmers who had made merry over John Thompson's contraption began to see something in it.

The citizens of Philadelphia caught the fever and laid several similar roads. The State also saw their advantages, and established public roads built after a similar fashion, designating them "railroads."

The time soon came when all the farmers drove up to these various tracks with their wagons, and, getting them upon the rails as best they might, started for town.

Every morning numbers of them could be seen making for the city. In the afternoon, the tide set the other way. There were no sidings, and the whole caravan had to move in one direction at the pace of the slowest horse on the road. But, even at that, the new railroad was considered the latest and greatest wonder in the world.

Then the locomotive was invented, and Horatio Allen, the first of the many famous American railroad engineers, brought one over from England. Immediately, the State of Pennsylvania became excited over it, ordering one for its "railroads."

Pleased the Farmers.

When it arrived, the tracks were improved to support its weight, and the offer was made to haul wagons into town for a fixed fee. Some of the farmers took advantage of it, others did not, and the usual procedure for a number of years was a long line of wagons, drawn by horses, constantly breaking down on the track, followed by more wagons, drawn by an impatient, wooden-wheeled engine that had a bad habit of getting into difficulties itself.

It is hard to believe it now, but this kind of railroading went on from the early thirties to 1847, when it was decided that the State management of railroads was so unenterprising in the face of the great strides made in other parts of the country, that they had better be given over into private hands.

The apology for a railroad, known as the Philadelphia, Germantown and Norristown, which had grown out of John Thompson's idea, was bought from the State by the newly organized Pennsylvania Railroad, of which John Edgar Thompson was chief engineer.

A pretty girl who enjoyed the excitement of taking the first ride behind a locomotive in this country is responsible for another of the big railroad systems. About the time

that John Thompson was receiving his earliest vindication, she was married at her home in the Ramapo Valley, to the westward of New York, and, with Henry L. Pierson, her husband, went on their honeymoon to Charleston, South Carolina. They arrived just as the first few miles of the first railroad in this country had been completed, and heard nothing but talk about the locomotive which had been imported and was about to hazard a run.

As soon as the bride heard about the locomotive, she set her heart upon riding in one. To her husband and all Charleston, it was as if a bride in this day should insist on making an aeroplane flight. But if anything is needed to prove that the young wife was actually pretty, it is that she had her way and took the ride.

After that, to travel from the Ramapo Valley to New York City by carriage was altogether too slow, and she cherished the extravagant day-dream of riding behind a locomotive to the metropolis.

She proposed to her husband that he secure her father's backing and build the railroad she desired, and she wheedled her father until he began to have day-dreams himself. The enterprise was slow in materializing, but in spite of failure, set-backs and constant shortage of funds, she urged them on, until twenty years later, she was able to realize her dream and rode from New York to the Great Lakes within a day over the Erie Railroad.

A Railroad That Paid.

Long before this historic event took place, Buffalo had been reached by the New York Central, a corporation evolved from the day-dream that railroads could be made to pay big dividends.

Like most of the roads of the early forties, it came out of the delirium of railroad intoxication in which the country was indulging; but, that it developed so rapidly into a connected railroad out of seven small, miserable, disconnected links, was due to the efficiency of the Syracuse and Utica Railroad, which paid handsomely from the start, attracting the attention of the first of the financiers who saw the value in combination.

All the towns from Albany to Buffalo had become connected in a haphazard way by rail, but the individual companies were all so poor that they could not have secured capital if it had not been for one road that ran on schedule, making ten to twelve miles an hour, crowded with excursionists. Even as early as 1839, before the other six connecting links had been built, the Syracuse and Utica had been a paying institution, the first of the successful railroad ventures from a financial point of view.

It had but fifty miles of track, half a dozen engines and less than thirty cars, but it served as a nucleus for the Vanderbilt system with 2,829 miles of track, 1,894 engines and 70,000 cars.

Horses Versus Locomotives.

The beginnings of the Baltimore and Ohio is an even more engaging story. What made the Erie and the New York Central possible was that the interior needed an outlet to the sea.

The same situation confronted the country to the westward of Baltimore, only, instead of the country worrying about it, Baltimore took the burden on itself. It fostered a plan of laying a railroad across the Alleghanies to the headwaters of the Ohio and into the western country which was just beginning to receive its first settlers.

New York was laughing at a ridiculous individual who tried to get backing for a railroad south of the Great Lakes to connect with the navigable waters of the Mississippi, and was inclined to regard Baltimore's dreams as scarcely less ludicrous. These dreams would have come to little, if the original plan had been adhered to.

The locomotive had been tried out at Charleston, and even had been run at night by the light of a pine-knot on a flat car in front, but Baltimore was skeptical and was quite certain that horses would be sufficient.

It is no wonder, however, that they fought shy of engines. In spite of a few successful trials, four of the best-known English engineers had just held a conference in London at which they decided that the locomotive was impracticable. As an alternative, they urged stationary engines, much like the present donkey-engines, with a long rope attached to a revolving drum, a scheme something like the cable road.

Any mine in the country to-day has a tramway superior to this first attempt of the Baltimore and Ohio. It was nothing more than a pair of wooden rails for wagons with grooved wheels to be pulled across the country by horses. The cars held but a few bushels and it was really about as cheap to use the highway, but Baltimore took more pride in that piece of track then than it

ever has since, although it has stretched out until it is now 3,447 miles long, and has in its service 87,445 cars and 2,000 engines.

But, as if to make up for its original lack of faith in the powers of the locomotive, this road was the first, seventy-five years later, to see the value of the Mallet compound locomotives and increase its freight-hauling capacity by fifty per cent.

A Track That Disappeared.

The Wabash got its start because, in the winter of 1846-1847, the farmers of Central Illinois needed runners for their sleighs and wood for their fires.

The first railroad agitation had swept through Illinois several years before, and out of a hundred schemes for railroad building only one had materialized. It was called the Northern Cross, and was built by the State on the assumption that it was going to settle and civilize Illinois. It was a road of some pretentions when built, but served no purpose whatsoever.

It began nowhere and ended nowhere. It opened no communication to the outside world, and could do no greater service than haul farm crops to miserable hamlets that had no need of them. In those days, Chicago was only a small town, and the rest of the State just missed being a wilderness.

Nevertheless, the Northern Cross had been built. The whole State had been taxed far beyond its possibilities to pay for it, and an attempt was made to get some good out of the money.

A locomotive was imported, and it was run for several summers. Then came the winter of 1846-1847, when the strap irons laid along the wooden rails began to disappear, making the seasoned timbers beneath an irresistible temptation to the fire-wood hunters.

In the spring, there was no longer any track, and the State officials, throwing up their hands in despair, put the Northern Cross to the block.

Even at this dark moment, the dawn of the great railroad geniuses who built up the country was at hand, and the first of these—N. H. Ridgely, of Springfield, Illinois—was on hand to bid $20,000 for what remained of the Northern Cross. This was a ridiculous price, as all that was left was the right-of-way. However, this was all that Ridgely needed to serve his purpose.

To the eastward, two railroads, which sold stock under the ambitious titles of the "Toledo and Illinois," and the "Lake Erie, Wabash, and St. Louis," had built a few miles of track. What they needed to breathe enthusiasm into prospective stockholders was a few miles of road-bed in Illinois, so that they could publish a prospectus stating that they were building in three States at once. It sounded well, and it was even easier to get money out of people's pockets then than now, so they merged the three roads into one. It was named the Wabash.

The Rock Island planned to go to the Pacific coast, and was the first of the proposed transcontinental railroads to get a real start.

This was never accomplished, but if the attempt had been for a lesser goal, it might never have had two terminals.

The Rock Island was only one out of 800 similar projects to connect Chicago with the Mississippi. Only a few of the others even got a start, and most of them began and ended in small stretches of isolated track which were finally torn up by the farmers.

The Rock Island, however, proved so successful in its limited field that its directors scoffed at the wild plans of its first promoters, and when Major-General Grenville M. Dodge went before them a few years later to secure their support in an extension of the Rock Island to the Pacific, they refused to listen.

Would Not Heed Promoters.

In his book, "How We Built the Union Pacific," he says, in telling of this meeting to which he went, fired with enthusiasm:

"The secretary of the company read my report, but, before he was half through, nearly every person had left the room."

With great self-restraint, General Dodge adds:

"I could see that there was a lack of faith and even interest in the matter. One of the directors said in the outer room that he did not see why they should be asked to hear such nonsense."

So the Rock Island missed its chance of becoming the first transcontinental railroad.

Contemporaneous with it, and based on a scheme hardly less airy in its way than the purposes of the original Rock Island promoters, was the inception of the great Chicago and Northwestern.

In the year 1836, there were two towns in northern Illinois which were striving for

leadership. That one would become a great city every one was convinced. Of the two, Chicago had the best start, with 1,500 inhabitants; but almost due west, within a stone's throw of the Mississippi, was Galena, boosted by real-estate boomers who were always in Chicago selling Galena town lots.

A Real-Estate Railroad.

To help along their scheme, they went to the Illinois Legislature and received a charter for the Chicago and Galena Railroad. Then, with a great flourish and much selling of lots, they set about surveying a railroad and ran ten miles out of Chicago.

It was not necessary to go farther. The people in Chicago would buy the lots on that. But, shortly, interest began to flag, so they did the next most conspicuous thing, laid tracks on Dearborn Street.

In those days, the favorite way to build railroads was to elevate them on timbers and so escape the unevenness of the country, rather than attack the ground with scrapers and reduce it all to one level. So these busy promoters constructed an elevated track down the center of Dearborn Street, not that there was any necessity for it, Dearborn Street being as level as the floor, but because it made more of a show.

With that grand spectacle to conjure with, the sale of Galena lots was so easy that the promoters soon rid themselves of all their holdings and, having no further use for the incipient railroad, left it as it stood.

For eleven years, until 1846, it blocked the main street of the town—a nuisance and an eyesore.

Just as the Wabash and the Rock Island came out of nothing but frenzied minds into great railroad systems, the Chicago and Galena was actually surveyed its whole length, and work was begun which has not stopped yet.

By this time, a number of small towns had sprung up northwest of Chicago, and it was thought best to take them in. The route from Chicago to Galena was, therefore, in the shape of an interrogation point. As work progressed, Galena and the country to the westward was rather neglected, with the result that, while the Chicago and Northwestern has spread itself over the whole of the territory for which it was named, to go to Galena over it, even to this day, requires a roundabout journey over the interrogation-point route.

There had been a lot of wonder and speculation about a Pacific railroad even before the Rock Island got started that way, and the dreams grew in number until every town east of the Rocky Mountains which had more than a dozen houses regarded itself as the eastern terminus of the proposed Pacific Railroad.

In the same way, each of the great transcontinental lines afterward built took form first in the mind of some dreamer.

Josiah Perham appeared in New York in 1850, his shrewd face glowing with Yankee enthusiasm, and announced that he was about to sell a million shares of stock in the People's Pacific Railroad, for which he was about to get a charter.

If a man of Josiah Perham's type undertook to-day to sell a million shares in an airship line to London, urging people to buy for patriotic motives, he would not be treated with more contempt than the solid business men of New York accorded Josiah Perham. Moreover, he would probably be denied the use of the mails, and if he pursued Congressmen and made the life of the President miserable for fourteen years in his desire to receive a government charter, he would be barred from Washington.

What Josiah Perham thought of doing seemed no less mad. National enthusiasm was bubbling in those days a little more violently than at present, but the project was no less chimerical to financiers.

Perham was rich for his time, having made a fortune arranging excursions on the early railroads, which he spent before he was able to secure a charter.

So great was his enthusiasm, however, that he even got the foremost Congressmen of his time to speak for his project. Finally, in 1864, after several other Pacific roads had been chartered, he secured the name of Abraham Lincoln to a paper that made his plan possible.

The charter, once launched, was too valuable to be allowed to die, and although Perham himself did not live to see his dream realized, the People's Pacific Railroad finally evolved into the Northern Pacific, and was built under that name.

The Origin of the Missouri Pacific.

But even while Perham was making his first attempt to secure a charter, the city of St. Louis, with 90,000 inhabitants, started a railroad westward under the name of the Missouri Pacific. It had the far goal in

view, and seemed for the time to have the best chance of reaching it, but it was many years before it touched the Rocky Mountains.

Still that line, stretching out over the prairies, was destined to become one of the largest railroads in the country, with 7,170 miles of track, more than 1,000 engines, and 50,000 cars.

It was one out of hundreds. There was at least one transcontinental railroad planned for each parallel of latitude. But less than half a dozen of them had behind them dreamers who could make their dreams come true. Among them was Abraham Lincoln.

It has only recently become known that Lincoln belonged among the empire builders, and decided the fate of the first transcontinental railroad with the cities that have grown up along its tracks. A chance meeting between Lincoln and General Dodge brought this about. In the book recently published and quoted herein, General Dodge shows how Lincoln first pictured the rails laid over the emigrant trail, and afterward decided that route for the Union Pacific.

Back of it is a little history. When the Rock Island gave up its Pacific projects, it lost the services of its most daring engineer, Peter A. Dey. He decided to go farther on his own account, and, crossing the Mississippi into Iowa, began the survey of the Mississippi and Missouri Railroad. Logically that was the beginning of the Union Pacific, although it afterward became part of the Rock Island. With Dey was Dodge.

The First Transcontinental Line.

All sorts of surveys for railroads to the Pacific had been made, but Dey and Dodge had an idea that the best one lay due west of where they were working. Dodge was the more foot-loose of the two, and he went forward to investigate, crossing the Missouri River at Council Bluffs, in 1853, to the spot where Omaha, then an Indian camp, now stands.

Dodge crossed at that point and determined the future of Omaha and the route of the Union Pacific. Dodge felt that he was making history, and he became so anxious to reach the Platte, to see whether it was really the feasible route he believed it to be, that he left his escort and struck out across the prairie by himself into what was then a hostile Indian country. Afterward the Union Pacific was laid almost in his pony's tracks.

During the six or eight years that Dodge had made his headquarters at Council Bluffs, he worked farther and farther west until he had mapped out a route through the Rocky Mountains.

Returning, in 1859, from an expedition, he was sitting on the steps of the old Pacific House, in Council Bluffs, when he was approached by a tall, kindly stranger, who introduced himself as a lawyer from Illinois.

The stranger asked several questions about the Western country, and Dodge answered until he had imparted all the information it had taken him years to get. But he thought nothing of it at the time, as he was accustomed to explaining the prairie country to strangers, and the matter would never have been recalled had it not been for an incident which occurred in the midst of the Civil War, four years later.

Lincoln Maps the Route.

Dodge, the engineer, had become General Dodge and was in command of a district in Mississippi, when, one day, he received a message from General Grant to proceed at once to Washington and report to President Lincoln.

In the heat of war, General Dodge had done a number of things that he feared might not look well from the President's point of view, and he anticipated trouble. Wondering all the way what was in store for him, he had no inkling of the purpose of the journey until he arrived. Then, as he entered the White House, he was greeted cordially by the Illinois lawyer with whom he had been so friendly and confidential.

The former conversation was brought up immediately, the President telling General Dodge that it was responsible for the present meeting. Forgetting for the moment the cares of war, Lincoln's face lighted with enthusiasm, and he asked to be taken once more—on a mental tour—over the prairie country west of the Missouri. Then he told General Dodge that the bill for the construction of the Union Pacific had passed Congress, and it was his duty to determine the route so far as it concerned the eastern terminus.

"Several towns on the Missouri River," writes General Dodge, "were competing for the terminus, but Mr. Lincoln practically settled the question in favor of the location I recommended."

That location was Omaha, only a few years previously the Indian camp from which Dodge turned his pony's nose westward.

The Union Pacific was so named because

it was to bind the Union together, but it realized its purpose the sooner on account of the Central Pacific, which met it half way, the work of another dreamer—Theodore D. Judah.

Of all the prairie and mountain country, no part lured the early voyagers more than the fascinating region southwest of Kansas—past the bloody Point of Rocks over the Santa Fe trail into what was then known as the Great American Desert.

Visions of the Santa Fe.

Even to-day, in spite of the fact that it is crisscrossed with railroad tracks, it has the same strong appeal to the imagination.

The man most interested in its possibilities in those days was Colonel Cyrus K. Holliday, one of the founders of Topeka and a Kansas pioneer. At one time, his cabin was the farthest west.

Standing in his cabin-door, he would look down the broad Santa Fe trail, and, day by day, it grew upon him that there was a route for a railroad. The soil of Kansas had hardly been turned, and buffaloes still roamed over it, but there was no stopping Colonel Holliday and his day-dream. One day he took a last look from his cabin-door and started East to get money.

Nine years he talked and planned before any one would listen to him. The Union Pacific and Central Pacific, which had been visions when he began, were almost completed before he received the slightest attention.

Then, in 1867, he found men who had the courage to build the first thousand miles, but it was many years after before the whole of his dream was realized and the Santa Fe circled through the mesas to California.

With the Union Pacific across the central Rockies, the Santa Fe circling from the south and the North Pacific in the middle north, another of the great transportation systems soon to be brought to life was the railroad of the far Northwest.

Before any of the other roads had taken form, even when Josiah Perham was just beginning to pave the way for the Northern Pacific, James J. Hill went into the Northwest. At the time there were only six thousand white people in Minnesota.

When he had been there only a few years, the St. Paul and Pacific, destined to become the Great Northern, was projected, but did nothing to make itself worthy of the name until twenty-five years later when he found that it was ripe to build. Even in the fifties he had his vision of empire, and though he had to wait, he is the only one of all the dreamers who made his dream come true from beginning to end.

When James J. Hill first turned his horse westward from Chicago to the prairie grass, the country was in need of cruder forms of transportation than railroads. For more than twenty years his time was absorbed in getting supplies as quickly as possible to settlers, who sent out their farm produce in an ever-increasing volume.

Sledges, carts, and steamers that could travel in the shallowest water, served his purpose then, but his thoughts were still far afield and as soon as the settlers began to push into the interior far enough to justify it, he wanted a railroad.

His interests had grown into the north along the Red River when, in 1883, it came to him that his earliest dreams of an empire in the West were ready for realization.

Selling out all his other interests, he centered his attention on the St. Paul and Pacific, and secretly surveyed a route to the Missouri. Long before work had progressed that far, however, his schemes had carried him across the Dakotas to Montana and beyond, and before any one realized what he was up to he was rushing his tracks up the first stretch to the mountains.

A Fight Against Odds.

When it was learned that he had nothing less in view than another transcontinental railroad, every hand was turned against him. Stockholders rebelled, other railroad men scoffed at his wild dream, and, for a time, even his right-of-way was blocked by the government. But he shook his fist in the faces of the New York bankers who tried to interfere, and told the stockholders that he would not stop until the board of directors made him. That could not happen before the next annual meeting.

It was a boast. The directors also turned on him.

Then came the crucial moment of his life. Either his plan would tumble about his ears, leaving his dream forever unrealized, or it would receive an impetus that would carry it through like a whirlwind.

Taking the meeting of the board by storm, he locked the door behind him and did not permit a man to leave until, by the power of his personality and the logic of his argument, he had made the board see the situation with his own eyes.

PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.

In Planning Deeds That Are Dark the "Heathen Chinee" Is Not Alone.

SYNOPSIS OF PREVIOUS CHAPTERS.

VINCENT WILSON, having risen from the apprentice shop to mechanical superintendent of the Mainland System, has discovered what he believes to be a leak in the affairs of the company, and criticizes to President Harvey Jones the action of the board of directors on voting $20,000 for certain purchases. Wilson visits a former employee of the Mainland System, "Doc" Ferguson, who imparts to him the information that Kaintuck, a former friend of both, had developed leprosy and been sent to the leper settlement at Molokai. "Kaintuck" was betrothed to a beautiful girl, Meriel Planquette, whose address Wilson is very desirous of obtaining from "Doc." "Doc" refuses to give this information unless Wilson pays him $5,000. Meriel Planquette, after "Kaintuck" had been sent to the leper settlement, married John Toylmore, formerly New York representative of the Mainland System, who shortly after their marriage had been killed in an automobile accident. She now has many suitors, among them Bertrand Clivers, an elderly broker, and Jimmie Winters, young and impetuous. She loves the latter and promises to marry him, but is won over at the very last moment by Clivers and leaves with him for Europe. Instead of going to Europe, however, Mr. and Mrs. Clivers register at the Continental Hotel on Fifth Avenue, where Winters discovers them. He is mad with jealousy and hatred for Clivers and forces his presence on Meriel as she enters the hotel alone. He reproaches her and threatens her husband. He overhears two men in conversation in the hotel lobby, and as they let fall the word "Clivers" he determines to know more about them. One of them, who proves to be Vincent Wilson, is stopping at the hotel, and to him Winters sends up his card. He is received, and explains the reason of his intrusion. Wilson is eager to hear his story and, in turn, tells of his interest in the Clivers. Winters is persuaded to introduce Wilson to Meriel as she is lunching alone, her husband having left for Louisville to be away a few days. Wilson is also anxious to meet Clivers, and arranges with Winters and Tom Tracie, a detective, to be in the hotel lobby on Sunday evening at the hour Clivers is expected to return. On his arrival he is recognized by Wilson as Stephen Blander. However, it is not in Wilson's plan to let Clivers know he has been discovered, and so he greets him by his real name, Blander, and seemingly takes it for granted that he is in New York on a visit. Blander is suspicious of Wilson, but can find no foundation for his suspicion, until he ascertains that he, Wilson, is stopping at the Continental, and this convinces him that he is being spied upon, and he determines to get Wilson out of the way by fair means or foul. The fear of discovery, however, is so great that an attack of apoplexy seizes him and he is confined to his room for several days. In the meantime, Wilson has returned to Louisville, leaving instructions with the detective to keep Blander under surveillance, and relates to President Harvey Jones all that has transpired. Blander declares that Wilson must be put out of the way.

CHAPTER XIII.

A Journey Down-Town.

"VINCENT WILSON must pay for this. I cannot afford to lose!"

These were the first words on Blander's lips, as he arose the next morning.

Even as he dressed and took the spare breakfast that he had sent up to his room, he kept repeating:

"Get Wilson out of the way! Get Wilson out of the way!"

He wanted to burn the desire into his mind. He wanted to fix it so steadfastly on his purpose that he would not quail at the last moment.

"Get Wilson out of the way!"

About half past ten o'clock, he called to his wife and told her that he was going down town.

"And, my dear," he added. "I may have to run over to Philadelphia for a day, to look over some bonds. I may stay one day or

two days—I don't know. In any event, make yourself perfectly happy. Take all the motor rides you want, go to all of the theaters, and, if you are lonesome, call up some of your friends."

"Do you have to be gone long?" asked Meriel, half interestedly.

"I can't say, my dear. I hope to close up a lot of my affairs soon so that we can take a long trip and be together for more than a week at a time. You see what it is to be married to a financier who must fight like a tiger for his interests. Now, deary, don't be lonesome. If you want any money, the hotel will advance you any amount." He moved toward the door.

The wife kissed him unfeelingly, he waved a hearty "good-by," and the door closed between them.

Blander left the hotel unobserved. The lobby was crowded at the time. The busy clerks did not see his hasty exit, nor did Detective Tracie, who had been keeping a silent watch on the main floor as a matter of precaution.

Blander hailed a taxi-cab and was driven to the ferry station at the foot of Cortlandt Street, ostensibly to take a Jersey ferry. There, he dismissed the cab, and hurried into the ferry-house—just as a bluff.

He looked out to see if the taxi driver were waiting for another fare, but, to his satisfaction, he had departed.

Blander didn't want to take any chances. The game that he had begun to play was a desperate one. Millionaires and other men whose names are familiar to the inner circles of Wall Street and other places where the great industrial affairs of the country are discussed, do not—as a rule—go about planning the murder of a fellow-being.

When he left the ferry-station, he walked briskly across the city—through City Hall Park by Park Row—the home of the great New York newspapers—to the entrance to Brooklyn Bridge and onto the Bowery.

He had gone along that thoroughfare about three blocks, when he started on an eastern tangent, to a certain tenement just beyond the Cherry Hill district and not far from the North River.

In this tenement lived "Brown" Taber, so-called because of the peculiar hue of his brown hair and eyes and the sallowness of his complexion. The three mingled in such a noticeable coloring, that, from his boyhood, he had been known as "Brown" Taber.

Once, when he was called before a judge and jury, for placing several and sundry pieces of lead in the body of a policeman, who was trying to "take him in," he said that it was so long since he had heard his first name, he was doubtful if he knew just what it was.

He was forty-eight years old—big, burly, and strong. By trade he was a teamster—but for some reason or other, he seldom plied his trade. His employers soon found him out, and they wouldn't take chances with a man who had been publicly declared a thug and who had a prison record as well. On many occasions, he had been a "front-page feature" in the newspapers. He lived with his old mother—a white-haired, gentle soul, who was slowly going to her grave because of her son's wickedness. But his love for her was the most notable topic of "the block," as the tenement in which they lived was called.

On more than one occasion, it had saved "Brown" from jail. It was the old mother's hope and prayer to reform her son. Ever since he had come home from Sing Sing, she had pleaded with him to stay in the right path—at least, so long as she lived—and, with the aid of Father Flynn, whose untiring devotion to the sinning souls of his parish dominion was heroic, she had partly succeeded.

"Brownie"—that was her pet name for him—"Brownie was always a good boy," she would say through her tears, "until the father died—and then I could not hold him."

But "Brown" had promised to reform. He had given his old mother his word that he would be good. With some little aid from Father Flynn, coupled to the few hundred dollars which, in former years, she had saved from her husband's earnings, they would go to some new town in the West and begin anew.

Poor little woman! Her mother's heart beat with youthful joy at the thought of this. She wanted her boy to have a clean chance. Once away from evil associates, she could watch over him—for even though he was a grown man, a thug, and a prison bird, he was her own flesh and blood.

Such is the love of a mother.

CHAPTER XIV.

The Interview with "Brown."

THERE was a knock on the door of the Taber tenement. "Brown" and his mother were sitting in their little living room. They looked at each other queerly.

The knocking was new and strange to them. They knew the quiet, friendly rapping of Father Flynn, they could tell the different

announcements of the few friends that dropped in now and then—but, there was a stranger at the door.

The knocking was repeated several times, and each time in the most sudden and sharp manner as if the visitor wanted to be admitted without delay.

"I wonder who that can be?" said the old mother.

"Dunno," replied Taber. "Sounds like the knock of the last copper who come to pinch me."

"Better go and see, 'Brownie.'"

The man obeyed. He opened the door cautiously. Outside stood the heavy-built, well-groomed form of Stephen Blander.

It was unusual to see so hefty a swell in such a place as an east-side tenement. But Blander showed by his manner that he had no misgivings for being there. It was evident that he was not looking for a "lost-strayed-or-stolen" son.

"Is this Mr. Taber?" he asked, as politely as if he had been in his own club.

"Yes, sir," replied "Brown."

"I should like to see you on a little matter of business," said Blander.

"Brown" Taber opened the door a little wider, but as Blander caught sight of the old mother, he showed by his quick-changing countenance that he did not want a third party present to hear what he had to say.

"Come in," said "Brown."

"Thank you, er—" stuttered Blander. "But—if it is all the same to you—that is, the nature of my business is such that—I should like to see you alone."

"Oh, I see," said "Brown."

"You know of some place where I can talk to you alone?" Blander put the question very quietly.

"Brown" did not say anything. He simply reached to the little rack on the wall for his hat and coat, and Blander stepped back into the hall.

Mrs. Taber did not like the whole proceeding, nor did it please her to see her son put on his hat and coat and start off with a mysterious stranger.

She arose and went up to him. With more tenderness than usual, she put her small hands up to his great face and patted him as if he were an unruly baby.

"Where are you going, 'Brownie'?" she asked.

"Down to Joe Smith's—in the back room," he answered.

"Oh, 'Brownie,' I hate to have you go there. Why must you?"

"Well, I'd better see what this guy wants—and he wants to see me alone."

"Be careful, my boy, be careful. Don't let him lead you into anything—not even for any sum of money."

The old mother's eyes filled with tears. She looked into the eyes of her son, and repeated, "Not for any sum of money!"

"All right, mother, I promise."

"Brown" stooped over and kissed the little woman. He put his arm around her and he could feel her body trembling. It was clear that she foreboded that something had suddenly come into their lives to spoil her plan.

Oh, women are so keen in such moments as this. What gives them their intuition?—we men often wonder—and well we may, for they possess it just as certain as there is a sun and moon.

"Don't worry, mother. I know where I stand," "Brown" added, by way of assurance.

He joined Blander in the hallway. The little mother went into her bedroom, took the small crucifix from its place on the mantel and, holding it before her, knelt by her humble bed and prayed as she had never prayed before.

CHAPTER XV.

At Joe Smith's.

THE Tabers lived on the sixth and top floor of the tenement. The journey up and down stairs was a long one, and the stairs were narrow.

Blander led the way down and Taber followed. Neither spoke until the street was reached. Blander stepped over to the curb, looked cautiously about him, and then said:

"Taber, can I see you alone somewhere near here. I have a proposition to make to you—a business proposition."

"We can go down to the corner to Joe Smith's," replied Taber. "It's a saloon. There are some rooms in the back, and we won't be disturbed."

"Are you quite sure it is quiet—that is—er—I mean to say, we will not be disturbed?"

"It's the best place I know," "Brown" answered. "We can get in a corner, and nobody will hear us."

"Good!" ejaculated the financier.

The two started off. Joe Smith's was just around the corner—about a block and a half away. Neither man spoke a word, and Blander tried to keep just behind Taber so as the people in the street would not think that they were acquainted.

But Blander, with his Fifth Avenue dress and manners, was a queer sight in those parts. His kind seldom appeared in the precincts of Cherry Hill except when they went a slumming, and then they were usually hailed with such a volley of ancient eggs, dead cats and tin missles—which the rising generation of he Hill kept for that particular purpose—they seldom made a second visit.

Blander knew that he was being observed. He might be taken for a landlord, he thought, but little did he know that landlords are the most unpopular of all human beings in that section of the metropolis. Or, he might be a philanthropist—

Just as he was deciding which he would be, Taber turned into Joe Smith's. Blander was a little surprised and hesitated at the door. But this was no time to waver. He mustered up courage, and the man who had been used to the cafés of rich clubs and gay hotels; found himself inside the most ill-smelling "joint" in all New York.

The fumes of stale beer and whisky almost suffocated him. The hangers-on—reeking with bad liquor inside and the filth of idleness outside—looked up at him, and one or two even began to jeer.

Joe Smith was behind the bar. He saw Taber speak to Blander and point to a room in the rear of the place, and he knew that something good was going to happen.

That was why he yelled, "Shut up, you four-flusher, or I'll throw you out!" to one half-drunk individual who had spent his last cent in the place the night before and who had suggested that the newcomer be asked "to buy."

Taber pulled up a chair to a table, motioned Blander to be seated, and then took a chair himself.

"What will you have?" asked Blander, knowing that it would be necessary to patronize the place.

"Beer," replied Taber.

"So will I," said Blander.

"Two up!" called Taber through the door. Presently, Joe Smith came in with the drinks on a tray, and he took the financier's quarter and his request to keep the change with undue civility. As he went out, he closed the door.

"Anyting yez wants, jess call, 'Brownie,'" he said.

The room was small and badly lighted. It was stuffy and unclean. Blander wished he were in some other place, but his mission was as unclean as his surroundings, and, perhaps, it was all for the best.

"Brown" gulped his beer; Blander sipped his. Then Blander cleared his throat, gave the vest that covered his portly front a tug, and, leaning over toward the other man, said in a low, but clear voice:

"Taber, I have come to you to ask you to do a job for me."

Somewhere he had read that putting a man to death for money was frequently referred to as a "job" by the initiated.

"It is a job," he went on, "that requires the nerve of just such a man as you, and I understand that you are just the man to carry it out. I have read all about you—and know you by—er—reputation, so I feel safe in—er—talking to you.

"Before going any further, I may tell you that its successful—er—carrying out will mean a large sum of money—er—to the man who does it."

"What kind of a job is it?" asked "Brown."

Blander looked nervously at the door. He cleared his throat again, and continued speaking very softly.

"For some time, Taber, a certain man has been bothering me—that is, he has been trying to make it appear that I—er—that I am—that is, somewhat involved in certain money matters. Of course, it is only a supposition of his—jealousy—that's it!—business jealousy! He wants to make it appear that I am—involved—that I have not carried on my affairs—my money affairs—"

Blander was floundering hopelessly. Taber was looking at him straight and true, without a motion.

His sharp brown eyes were penetrating the financier. His face was fixed and sober. It was very evident that he would be obliged to tell Blander's story for him.

"Coming down to cases," said Taber, "you've got away with some dough that don't belong to you, and some feller has squealed."

That *was* what Blander wanted to say, but couldn't. He looked at Taber with blanched face. He wondered how Taber could have guessed it.

"An' you want to make me a proposition to 'croak' the guy what knows that you stole the coin? Ain't that it?"

"Brown" was not a man to mince matters. He was for coming straight to the issue without any diplomatic frills or unnecessary frippery. His frankness took Blander's breath away, for the moment.

"No. That is—well—I must admit it is something like it."

He took his handkerchief and wiped the heavy beads of perspiration from his brow and neck. He had showed his hand—now he must play the game to the limit.

"Yes, that is something—like what I would want you to do. He's not—a—big man," went on Blander, believing that the victim's size might whet the homicide's appetite.

Neither man spoke for a moment. The proposition had been made. Taber had brought it to a head quickly, and now he understood.

The man before him was evidently a rich man, and would pay the price—whatever it was. He was in a desperate situation, or he would not have come with such a proposition in his mind. But he would pay, he would pay—he was the kind who would pay!

And, what was one more notch in Taber's gun? He thought of the little mother and the promise. He could see her tears and feel her caress, and her soft and earnest words were ringing in his ears—but this man would pay!—he would pay more than the job was worth and the man who was brave enough to do the dirty deed would be rich and secure for life!

These and other thoughts ran through the brain of "Brown" Taber.

He could see himself and his mother living in luxury far from New York—and, too, he could see the cold, gray walls and the barred window of degradation. He could picture himself and his old mother with every comfort that the world could afford, and, too, he could taste the monotonous bread and water of the law-breaker.

Anyhow he asked, "How much will you give?"

"Five thousand dollars," said Blander.

"It isn't enough," replied Taber, with businesslike promptness.

"Five thousand dollars!" repeated Blander, slowly, with emphasis on the last word. "Why, my man, that will be in cold cash!"

"Cold cash on your part, and cold blood on mine," said Taber.

"What will you take?" asked Blander. He was showing signs of nervousness. It was evident that he did not want to "dicker" long.

"What will you give?" asked Taber. "it's worth a lot to you. You're the seller and I'm the buyer. You should know what it's worth to you."

"Suppose that we figure on—say—seventy hundred," said Blander.

"I'll have to think it over," said Taber. "I'll see you to-morrow."

"I wish that we could arrive at some definite arrangement to-day."

"You'll have to give me till to-morrow," replied Taber. "It's too ticklish a job. Look what stares me in the face—if I get caught."

"I am not oblivious to your nervousness in a transaction of this kind," Blander remarked; "but if you could facilitate matters by communicating with me, say, this evening."

"Well, make it to-night," said Taber. "I'll meet you here at eight."

"Suppose we say at the corner, at eight," Blander answered. "I should not like to come here without you."

"What's your name?" asked Taber, as the man started to go.

"My name?" said Blander, hesitating. "I will tell you that to-night—if you will excuse me until then."

He held out his hand, which Taber took.

"I just want to add," continued Blander, still holding Taber's hand, "that I will pay four thousand dollars on closing the agreement—that is, before any action is taken, and the balance immediately on—er—on—"

"On receiving the news that the guy is dead," said "Brown" Taber, with his customary method of coming to the point.

CHAPTER XVI.

Snakes in the Grass.

BLANDER and Taber walked into the street. A curious crowd had gathered while they were inside the saloon, for the appearance of such a fine-looking gentleman as Blander in such a region—especially when he had been closeted in the back room of a notorious saloon with a man who was known as one of the most desperate characters—was a matter for more than ordinary notice.

Blander eyed the crowd curiously, but those in the waiting throng knew that when "Brown" Taber curled his lower lip and said: "Chase yourselves!" and waved his hand in derision, they were to disperse.

Blander hurried on and was soon lost in the passing crowd. He made his way quickly from the Bowery, to that part of the city where men of his apparent kind walked and talked.

Taber walked around the square—and thought. He didn't want to go home until he had thought it all over—until he had sifted it over and over and over again in his mind, until he had looked at it from every conceivable angle.

It was a desperate step to take, but four thousand dollars would be handed to him when the agreement was made, and the balance when the trick was turned.

It was a lot of money. It would keep him from harm for a mighty long time, it would bring to his mother—

But then, he didn't want to think of her.

It would not be difficult to turn the trick. Merely lure the guy down to the wharf, on some pretext or other, some night when it was very dark. A quick sharp blow on the head—the body dropped into the waiting boat below—he would enter it so stealthily—then he would row out into the river—a weight would be tied to the feet—and it would be finished.

Thus he reasoned as he walked. Again he found himself in the vicinity of Joe Smith's. Before going home, he would go in and have one more drink—just one to sort of warm the cockles of his heart.

Joe was behind his busy bar drawing beer for a quartet of sailors who had just arrived on a South American bark, and were cutting loose with their money. When he had served them, he turned to "Brown" with a pleasant smile, and invited him to have a drink "on the house."

"Who was your friend, to-day, 'Brown'?" asked Smith.

"Oh, nobody in particular."

"Want you to pull off a little job?"

"I'm not saying anything, Joe."

"Well, you and a rich guy like that, don't sit in a room over one glass of suds for an hour, without somethin' happening. Did you roll him?"

"No, nothin' like that."

"Can't you let me know? Ain't I goin' to be in on it? You know if anythin' is pulled off in my 'joint' I'm entitled to some of the winnings."

"There was nothing pulled off, I tell you," said "Brown." "It was only a business matter."

"Not gettin' chesty, eh?"

Taber's first impulse was to let the man behind the bar have a piece of his mind and his fist, as well. That was his mode of settling an insult, but he was to bring Blander there that night, and he did not want to get into Smith's bad graces.

"No, I ain't getting chesty, Joe. I simply can't tell you anything about this—not now."

That seemed to satisfy Smith, so Taber swallowed his drink and started home. He climbed the long narrow stairs of his tenement more slowly than ever before. With each step he weighed the problem in his mind, with each step he wondered just what he would say to the little woman who waited for him and who had been wondering what kept him so long. He stood on the threshold of the door for a moment, put his hand on the knob and mustering up all his courage, entered.

The little mother was sitting with Father Flynn. The good man was comforting her.

As soon as her son entered, she arose and held out her arms to him.

"Oh, Brownie," she cried. "I'm so glad that you have come back! I was afraid that something had happened to you, and I sent for Father Flynn so he could advise me."

The priest held out his hand, and Taber took it and smiled.

"I'm glad you are here, my boy. Tell me is there anything wrong?"

"Nothing, father," he replied. "A man called to see me, and we went out to transact our business."

"All right," replied the priest. "Now, be good to the little mother, and if you want me, be sure to send for me."

The priest departed, and Taber sat rather sullenly by the window. His mother came over to him, put her arm around him and sat on the arm of his chair.

"Brownie," she whispered. "What is it all about? What did the man want?"

"Nothing, mother—it was nothing. Don't ask me."

She knew he was lying. She knew that whenever he was in trouble or planning some miserable crime his whole manner changed. He became a brooding, sullen, disagreeable sodden thing, and all these elements showed plainly now.

"Brownie," she said again, more tenderly than before, "I am your mother. You promised me that you are going to be good. Something came into your life to-day, that makes you want to change. Tell me, tell me all about it, tell me everything—the entire truth."

"There's nothing to tell mother."

"There is, my boy, and, worst of all, you are not truthful about it. Come, my dear, my boy, my child, tell me."

She stood up, and tears came into her eyes. She put her hand up to her face to brush them away. He heard her sob and he looked up. All the mother instinct went out to him. The vibrant force of her nature played in harmony with his soul, and he said:

"Mother, sit down. I will tell you."

She resumed her seat, but her heart was heavy. She knew that if he had made up his mind, he would be hard to move. He took her hand in his and held it tightly for a moment, then said:

"Did you notice that man who called here, to-day? Well, he wants me to kill a man."

"My child, don't! Don't think of such a thing! What did you tell him?"

"I told him nothing. But there is a lot of money in it mother. Four thousand dollars cash when the agreement is made, and the balance, thirty-five hundred dollars, when the trick is turned. Think of that—

"No! no!" she screamed. "Such a thing must not be! You must tell me you won't! Think of me! You would kill me. Remember that, 'Brownie,' you would kill me!"

Then she came close to him and put her arms around him and pleaded with him as never before. Her poor, frail body shook with emotion and her tears fell hot on his face. Her words came quick, then faltered, and, at length, he could stand it no longer. He took her in his arms, and said:

"Mother, leave this to me."

"Brownie," she said, in one last effort, "I will send for the police and have you arrested, if you do not promise me at once; and, furthermore, if you leave this house to-night, I'll call in the officers. There is nothing I won't do, 'Brownie,' to prevent this; so if you value your life and mine you can act now, but you shall not leave this house to-night unless it is over my dead body."

Small and weak as she was, he could see that she was determined. Somehow or other he didn't want to oppose her. It was mighty hard to be good in the face of such temptation. The call of all that money was sounding in his ears. Perhaps he could do it without her knowing it, but as he looked at her standing there in her misery, something came into his heart and held him back.

However, at a few minutes before eight o'clock that night, "Brown" Taber met Stephen Blander on the appointed corner, and a few minutes later, they walked into Joe Smith's place.

They entered the same little room, and Smith came in and took their order—and closed the door.

(To be continued.)

AN ENGINEER CENTENARIAN.

October Witnesses the One Hundredth Birthday of Railroad Veteran Whose Son Is Eligible for an Engineer's Age-Pension.

ROCKING peacefully to and fro in an arm-chair, John Strange Reeves, probably one of the oldest engineers in America, passes each succeeding day in the shaded quiet of a comfortable cottage on South K Street, Tacoma, Washington, elated over the fact that next October eighteenth will be his one hundredth birthday, but disappointed because he has been unable to see Halley's comet for the second time during his life.

Living with a bachelor son and a housekeeper, he enjoys life to a marked degree, keeping his custodians busy watching him all the time, because he refuses to realize that his mentality is younger than his physical strength, and often wanders away from their watchful care.

Reeves comes from Pennsylvania Dutch stock. He was born at Wilkesbarre, Lucerne County, Pennsylvania, October 18, 1810, and is the father of fifteen children. The oldest living son is now seventy-two years of age. All but four of the large family of children have died. Through the survivors Reeves can trace five living generations. He has twenty-eight grandchildren, eleven great-grandchildren, and one great-great-grandchild living.

"Providence has been very kind to me," he says, "though I have had some mighty hard knocks at times. I have never been really sick for a day, but I met with several accidents which laid me up at times.

"Until I was sixty years old, I was a railway engineer, and made many records while taking locomotives in and out of Cincinnati. Before that time both my hands were injured—you can see they are crippled now.

"I never drank or smoked, but I have chewed tobacco for a long, long time. I always went to bed early and got up early and lived regularly. I have not been a vegetarian or dieted strictly on anything.

"My oldest son, John, is a railway engineer on the Gould system in Indiana. He's run engines there for more than fifty years, and some time this year he will be pensioned off, and he is coming to see me."

Thirty years ago Reeves met with a second accident on a locomotive and his skull was pierced by the sharp end of a large oiling-can. An operation was necessary, and at that time his skull was trepanned with a silver plate.

A CORNER IN COYOTES.

BY R. K. CULVER.

Fresno Smith's Bright Idea Turned Out to Be a Skin-Game in More Ways Than One.

"SOMETIMES," said Fresno Smith, "I'm inclined toward a belief that there's something supernatural about coyotes, but, maybe, I'm mistaken; it may be only my imagination. I never did take much stock in spirits, and yet when I hear coyotes unloading their funeral song on a dark night like this, I can come mighty close to suspecting that the dead do return and make noises."

At this point, Fresno Smith kicked a dry branch on the smoldering fire and peered over his shoulder into the pitchy blackness, whence there came a series of quavering, melancholy howls.

"Yes, sir, kind of prickly down the spine; that's the way they make me feel. Perhaps I never mentioned it to you, but another wise man and myself, a very long time ago, got mixed up in a deal in which coyotes figured strong. We learned considerable that time about humans and coyotes. The other wise man knew more than I did, to begin with.

"He was a Solomon on wild things. He kept cases on 'em all. The way he could grab off fancy Latin names and hang them onto anything from an ant to a buzzard, was a tribute to nature. I tell you it was fine. Now my strong point was human nature, so we got together on a scheme that took both kinds of information.

"But let me back up just a minute till I tell you something more about old Solomon, because he was the boy who started me to working out my plan. He collected specimens and shipped 'em C. O. D. to Eastern points, some alive and some skinned, with tags tied to their hides.

The old professor was a wizard on ways and means of separating from their natural haunts all such parts of nature as were alive and loose and valuable to parks, museums and menageries. He had all other parties that I ever met sewed up and looking foolish.

He took orders for everything along the line, from a blue-tailed skink, which is a kind of lizard, to a California condor, which is some bird that flies high and is hard to coop. This Solomon party, he made good right along.

"One day, I met him in the hills, just beyond the rolling country, where I was loafing on a grub-stake, making motions with a pick and shovel, now and then, whenever anybody happened to show up. He wandered in, carrying a butterfly net and a line of talk about the scarcity of scorpions and tarantulas in that section as against the large crop of the previous year.

"'That is all I've got thus far,' says he, opening one of those carpet-bag valises and exposing to view about fifteen fruit-jars full of preserved snakes, scorpions, and big hairy spiders, along with some blue-bellied lizards and a few horned toads. I sprung a few old snake yarns on him and we got acquainted fine. I found out, as I was telling you, that he knew some things.

"After a time I says, 'Professor, in the course of your adventures and pursuit of general information, did you ever happen to get next to the habit of the coyote?'

"'Which habit?' he says.

"'The only one he has that counts,' says I. 'The habit of being heard and noticed a good deal more than is necessary in a sheep country, and without ever stepping on the pan of a trap, or getting in front of a .44.'

"He then informed me how he had once fooled a noble specimen of 'Canis latrans, or prairie-wolf,' as he called it, by means of a lame jack-rabbit and about four-bits' worth of wire fencing.

"'But there is a far more scientific way of capturing the wily beast,' says he.

"'Come across with it,' I says. 'You interest me; I've got a little scheme that's looking bigger every minute.'

"Then he went on to tell me that a pick and shovel and a stick of giant powder was the real surprise to spring on a coyote when you got his home address, with no spider-webs across the opening.

"'Dig him out,' he says; 'but first you have to find where he resides.'

"'Professor,' I says, 'Fate has thrown you and me together. This old State of California is pestered with those yellow sheep thieves. It offers real coin for coyote scalps. Of course the bounty is away too small just now, but it will be raised if this *ne plus ultra* scheme of mine pans out the way it ought to. Coyote scalps will be quoted at five bucks apiece when we get enough of them corraled and after I've worked along the lines I will expose to you directly.

"'The only trouble with coyotes is that they've been neglected. They don't possess the reputation for destructibility and rapid increase which is coming to them. All they need is advertising. Leave it to me. If you come in on this deal, you'll get one-third of all the profits, and it's easy money—very easy.'

"Well, I talked the old boy blind, and it wasn't long before he had agreed to help me collect a bunch of coyotes for my coyote ranch. It was feasible, all right, and the proposition looked honest if you didn't glance at it too close.

"I took my old mule down to Bakersfield and came back with two hundred yards of wire fencing, out of which I made a pen around a big rock-pile on a sunny slope. When I had sunk the fence three feet and leaned the top in toward the center, I had a coyote-tight corral and was ready for the breeding stock.

"Here was where old Solomon got busy. He would find a likely spot, and then he'd take a piece of that wire fencing and make a six-foot circle, bending in the ends almost to the center, leaving a little runway in between. Inside of that he'd tie a live jack-rabbit by one leg.

"The coyotes would claw around the outside of that circle till they came to the opening, and then they'd just naturally sift in the same as they'd go through a piece of sage-brush. Sometimes we'd find four or five in there in the morning, circling around the inside of that deception and shooting past the opening and against the other side, after they had followed up one of those curved ends at a rate of speed which a coyote always uses when he's scared. It used to make me laugh to see the way they'd fail to find that exit.

"But after a while one did accidentally get onto it, and he seemed to pass the news around, so we had to give that idea up. There was nothing to it then but to find where they hid in the daytime and to dig 'em out. And let me tell you, friends, if you've never mined coyotes, you've missed considerable excitement.

"Next to collecting rattlers with your bare hands, digging out coyotes is the most playful and nerve-quieting sport I ever did enjoy. When you begin to see the two green lights at the bottom of the hole, you spread your wire sack over it and shove a piece of lighted pitch-pine down in among the animals, and there's something stirring presently.

"I remember one old yellow dog got up so much speed, he tore right through the wire

"HE WAS A SOLOMON ON WILD THINGS.

"IT USED TO MAKE ME LAUGH TO SEE THE WAY THEY'D FAIL TO FIND THAT EXIT."

mesh, taking with him in his teeth a piece of the professor's old felt hat. But we didn't lose one often, and inside of a month we had the corral stocked up, and then the food supply began to worry us.

"For a while I knocked jack-rabbits over with a .44 and kept the pen from starving on our hands. I got so I could pick a rabbit off at a hundred yards, no matter which way he was headed, nor how fast; but shucks! what was the use? I didn't have a Gatling gun, and those coyotes, they were always running up and down that fence half starved.

"One day I got to thinking about old man Bently, tending to his flocks and herds, up on the grazing land a few miles north, and also of the fondness which a coyote has for sheep. To tell you the real truth, this was not what you would call a new idea with me. Away back there, when I framed the deal up, it had occurred to me that a pack of intelligent coyotes, sufficiently starved and turned loose in the right locality at the proper hour, would help to raise the price of scalps.

"In time the sheep men would set up a holler that would get around to Sacramento where appreciations came from. Then I would take the professor up that way and arrange for him to give a little lecture before the right committee, on the destructive and evasive habits of coyotes, their annual rate of increase, and a scientific forecast as to the future of the sheep industry being swallowed, hide and all, by the increase in coyotes. I had heard old Solomon talk some about evolution and the survival of the fittest, and a lot of stuff like that, and I knew he could make good.

"That night I picked out 'Prince' and 'Wolf,' a couple of big, half-starved coyotes that jumped against the fence and wagged their tails for more, whenever I appeared with two or three rabbits. They seemed to sort of like me and were getting tamer than the rest. I lassoed the two with a couple of bale-ropes, tied to the end of a pole, and started out at dusk. When I reached the proper spot, where the odor of sheep was strong, I turned 'em loose.

"In the morning they were back, pacing around the pen, and looking fine and satisfied around the girth. You can see that there was nothing to it from that on. Later in the spring, when the pups began to stick their noses out of the holes in the rock-pile in the middle of the pen, I let the whole pack forage, and I don't believe I ever lost one. Anybody knows you can domesticate a coyote, and you can take it straight from me, they know more than the smartest dog that ever walked.

"It seemed a shame to do what I was going to do with them. The little woolly pups were getting real playful. Many a night, in the lone moonlight, I've sat and watched 'em maul one another over, and roll and tumble like a lot of kittens. Then the old professor, he'd drift out and ask me if the time for garnering the profits wasn't about ripe; he was a mercenary person, the professor was. Well, I

needed cash myself, so finally we landed up at Sacramento and went to work to get the bounty raised.

"Just as I had expected, those coyotes had caused rumors of sheep destruction to float in toward headquarters; not only rumors either, there were sheep-men there to testify that something had to be done to the carnivorous coyote. They played right into our hands. But to make things sure, I took Professor Solomon around to the committee-room and turned him loose.

"What he said to them was enough to curl your hair. Why, he showed, by quoting Darwin, that according to the laws of evolution and the survival of the fittest, there would soon be a breed of coyotes traveling up and down the State as big as timber wolves and savager.

"Not only that, but he also argued that in the course of time nature would produce an invisible coyote! Do you get that—an invisible coyote—one that could glide in past a sheep-man and rub against his leg, without him seeing it at all; all that he would notice would be the damage that it left behind. I never knew before what the real advantage of a college education was. I sat up and took notice when I heard the old professor spring that one and saw him get away with it. You could have heard a pin drop when he finished that coyote talk of his.

"Some of the committee rose and said that $15 wasn't too much to raise the bounty on coyote scalps, after that; but it seems as soon as we got out they got more rational, placing the bounty at five dollars, which was plenty big enough for us, and all I had expected. We hung around until it went through that way, and then we disappeared in the direction of all those tame coyotes we had, waiting to be scalped.

"'Professor,' I says, 'you are the wise old owl in your line, I'll admit; but when it comes to human nature and the engineering of a scheme, I can give you cards. This coyote deal has gone right, from the start and you'll get your third O. K., but I'll tell you how I feel about it; it's a shame to butcher all those pets of mine for five apiece. I can't ever do it.'

"I saw a kind of cold gleam come into his eye.

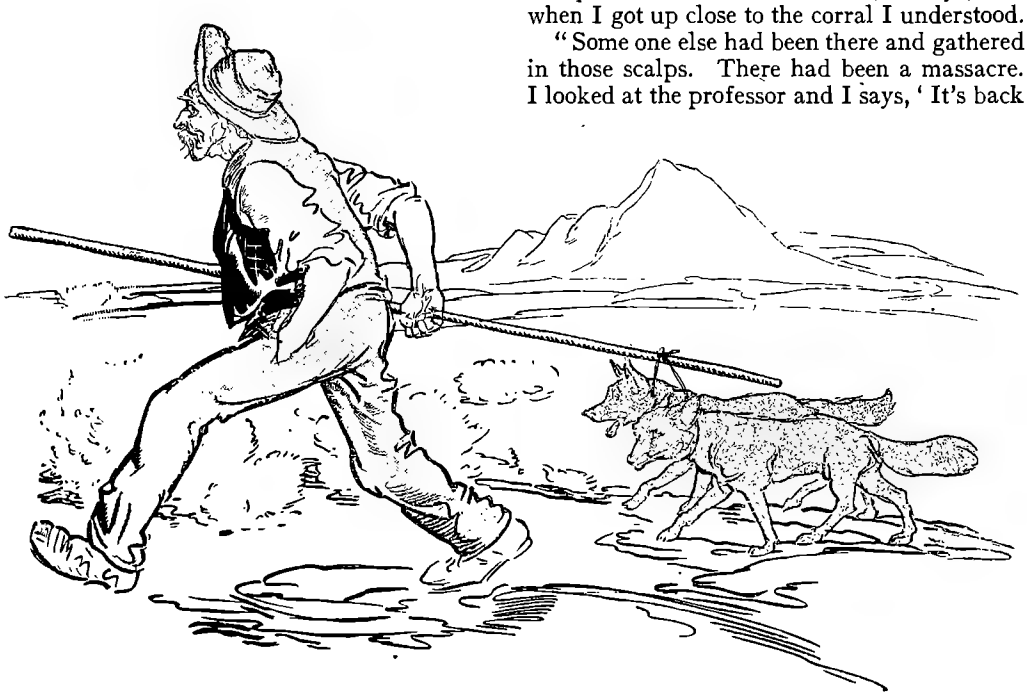
"'I have arranged for that,' he says, gazing far away.

"Supposing he meant chloroform or some other pleasant, scientific method of extermination, I felt easier. I thought I'd wait and see.

"When we got near to the ranch, I noticed a coyote streaking up the hill, like the real undomesticated type.

"'Something has been around here and has put the old fear into them,' I says, and when I got up close to the corral I understood.

"Some one else had been there and gathered in those scalps. There had been a massacre. I looked at the professor and I says, 'It's back



"THEY SEEMED TO SORT OF LIKE ME."

to town for me. I need another grub-stake; I'm dead broke!

"Old Solomon, he seemed to be preoccupied. He was sizing up the buzzards that were beginning to assemble there in large numbers.

"'I will join you later,' he replied. 'If I am not mistaken that is a California condor over there on that fence-post, and I think I see another *rara avis* over there. Isn't that a turkey buzzard in that flock with pink eyes and with white feathers in his tail? I have orders for them both.'

"It was too sad a place for me. As I rode away that afternoon I met up with old man Bently, bringing in the sheep—that is, what was left of them.

"'I understand,' says he, 'that the bounty on coyotes has been raised to five dollars. Is that true?'

"HE ARGUED THAT IN THE COURSE OF TIME, NATURE WOULD PRODUCE AN INVISIBLE COYOTE."

"'Yes, I says, 'but who gave you the information?'

"'Oh, a friend of mine that goes by the name of Solomon,' says he. 'He told me that the price was going up, and I was some interested, seeing as I've been supplying sheep for a coyote ranch he was running with me, share and share alike.

"'I was up there for a while yesterday, gathering in the scalp crop.'

"There being nothing more to say, I just moved on, taking off my hat to him as I disappeared. Ever since that time the howling of coyotes bothers me."

A COUNTRY WITH ONE RAILROAD.

PERSIA, like Turkey, is awakening from her sleep of centuries. She has a constitution, and some other modern improvements, but she hasn't caught up with the times enough to provide herself with a real transportation system.

Horses and donkeys still constitute the passenger and freight-carrying resources of the empire which once dominated the East. Still, Persia has one railroad. It is ten miles long, and runs from Teheran, the capital, to the shrine of a defunct shah.

The general manager of this road hasn't much trouble in figuring his ten-mile costs. Strikes do not disturb his slumbers. The finance committee doesn't bother itself with dividend policies or bond issues, nor does it lie awake nights wondering if rate-regulating bills are going to pass the Persian Parliament.—*Chicago Journal.*

The Riddle of the Gage.

BY CHARLES FREDERICK CARTER

OF all the vexatious problems of the railroad, none has caused so much trouble as that of its dimensions. So far as the principal dimension is concerned, there has been no difficulty; for it has been generally conceded that a railroad should be just long enough to reach from one terminus to the other.

But its width is a far different matter. The proper distance between the rails, or, in other words, the gage, is a point on which men may honestly differ. The problem is like an indeterminate decimal upon which one might figure forever without reaching a final conclusion.

The late E. H. Harriman expressed his conviction that the greatest mistake ever made by the railroad-builders was in not adopting a six-foot gage. Others, as well qualified as Harriman, have entertained different views which they have expounded at great length. The problem has troubled railroad-builders the world over ever since the first rails were laid.

Why the Standard Gage of Four Feet Eight and One-Half Inches Was Finally Decided On after Years of Experimenting with Various Widths from Three Feet Up.

STEPHENSON, who saw the railroad first, so to speak, undertook to settle the gage question himself without waiting for the advice or consent of any one. The wheels on ordinary road-vehicles in England, when Stephenson achieved his first triumph, as well as on the horse-tramways operated between various collieries and the nearest navigable waters, were 4 feet 9 inches apart. As the accepted idea of a railroad was simply an improved form of wagon-road, and man being an imitative animal, Stephenson decided that his locomotive should be of the same gage as a wagon.

But automatic machinery and accurate templates and gages were not then in use. Mechanics laboriously wrought everything by hand, and possibly they were not always as painstaking as they might have been.

At all events, when the "Rocket" was assembled in the shop its gage was found to be 4 feet 8½ inches. It was another case of good intentions gone wrong; but after the "Rocket" had won such a sensational success at the Rainhill trials, what was there to do but copy it faithfully in subsequent locomotives?

The "Rocket" having become the model for other locomotives, it was definitely settled that 4 feet 8½ inches was the proper gage for a railroad. The world adjusted its ideas to this dictum, and was moving smoothly and harmoniously along until Isambard Brunel, the man who built the famous but unlucky steamship Great Eastern, objected.

Brunel was a British engineer, the son of Sir Mark Isambard Brunel, a famous inventor and engineer who, among many other things, surveyed, in 1794, the canal which now connects Lake Champlain and the Hudson River.

The younger Brunel had a wonderfully persuasive way, which enabled him to manage capitalists pretty much as he pleased. In 1833, when the project of building the Great Western Railway of England was decided on, Brunel was appointed chief engineer.

Brunel was a man with an imagination, which enabled him to perceive the latent pos-

sibilities of the railroad more clearly than many of his contemporaries. He realized that high speed was feasible, but he erred regarding the way it was to be attained.

He made the great mistake of believing that a steam-engine was not capable of high piston speed, and that to get over the ground rapidly a locomotive would have to have very large driving-wheels. To attain the speed he wanted, he figured that driving-wheels ten feet in diameter were absolutely necessary.

Such an engine would topple over in a little less than no time on a railroad of the Stephenson gage. So, to bring the center of gravity down where it would have to behave itself, Brunel determined that his ten-foot drivers would have to be seven feet apart.

When it was announced that the Great Western Railway was to be a seven-foot gage, maybe there wasn't a row in Great Britain!

Every man who didn't know anything about railroads took his pen in hand and wrote letters to the newspapers to prove that the broad gage was, or was not, the proper one.

A Costly Change.

Brunel and Stephenson, the leaders of the broad and narrow gage forces (for 4 feet 8½ inches was then considered narrow gage), and their chief adherents were the siege guns in "the war of the gages," as it was called.

Unforeseen events severely handicapped Brunel, but did not cause him to lose the contest. When his express locomotive was finished, the wheels were so enormous that it was almost impossible to start the engine. When it finally did get under way, stopping was equally as difficult. The ten-foot drivers had to be abandoned.

The railroad could not be abandoned, and it would cost altogether too much to change the gage. Besides, the affair of the ten-foot drivers did not prove that anything was wrong with the gage.

To be sure, there could be no interchange of traffic with connecting roads. Passengers going to points not reached by the Great Western had to change cars at junction points, which was not convenient.

Unfortunately, freight had to be transshipped also, and when packages routed via the Great Western began to turn up in all parts of the kingdom except their destination, the railroad officials began to hear from the shippers. Manufacturers held conventions, adopted resolutions, and made things generally hot for the Great Western.

Finally, the matter got into Parliament, with the result that, in 1846, a royal commission was appointed to inquire into the "general subject of railway gages." The commission listened to a very large volume of testimony, from which it was ultimately deduced that the proper gage for all railroads was 5 feet 3 inches.

For twenty years the contest waged, ending at length in a draw. The Great Western continued to be operated as a broad-gage road for a score of years, until traffic conditions compelled unconditional surrender, and it joined the ranks of the standard gage.

While the great issue smoldered in Great Britain, and on the Continent as well, the railroad builders of the United States were laying the foundations for trouble on their own account. Like their British cousins, they could not agree on what gage railroads should run.

The Baltimore and Ohio's board of directors, which sent a commission to Great Britain to find out what a railroad was before beginning construction, copied the Stephenson gage of 4 feet 8½ inches. Only some of the early railroads copied the Baltimore and Ohio.

In New Jersey, there were some railroad builders who thought 4 feet 10 inches was the correct gage. The first locomotive built by the famous Rogers Locomotive Works was intended for this road. It happened to be the first engine equipped with a whistle, and President James, of the Mad River and Lake Erie Railroad, of Ohio, who happened to witness her trial trip, was so tickled with the whistle that he insisted upon buying it for his road, with the locomotive attached. It being the first locomotive on the first railroad operated in the Buckeye State, it set the fashion in gages there.

Various Gages.

While the prevailing gage in Ohio was 4 feet 10 inches in early days, the Sandusky, Mansfield and Newark Railroad was 5 feet 4 inches. The Atlantic and Great Western, the Erie, and the Ohio and Mississippi formed a 6-foot gage route between New York and St. Louis. The Mobile and Ohio and various other roads in South Carolina and Georgia were 5 feet wide, following the recommendation of Horatio Allen, one of the foremost of the pioneer railroad engineers. The St. Lawrence and Atlantic, in Maine and Canada, was a 5 feet 6 inch gage.

J. P. Kirkwood, chief engineer of the

Pacific Railroad, which was the first transcontinental line on which construction was begun, but which has not yet got any farther than Pueblo, Colorado, in its progress to the Pacific Coast, in a report to the board of directors dated June 27, 1851, recommended a gage of 5 feet 6 inches.

He gave cogent reasons for favoring this gage, and then quoted the opinions of eighteen authorities, including civil engineers, locomotive engineers, and others, all of whom favored a wider gage than 4 feet 8½ inches, then known in America, as in England, as "narrow gage."

Two were in favor of a 7-foot gage. Kirkwood's recommendation was adopted, and 283 miles of the Pacific Railroad were built on a gage of 5 feet 6 inches, and so operated until 1868, when the road was reduced to standard gage.

For years the gage question in America was a hopeless muddle. Each engineer had his own idea. The more plausible ones succeeded in getting their theories put into practise somewhere, with confusing results.

Where Engineers Fear to Tread.

Legislators do not hesitate to rush in where engineers fear to tread. Learning what a time everybody was having about so simple a matter, the Legislature of Missouri passed a law, which was approved February 24, 1853, section 27 of which reads as follows:

"The gage of track, or width between rails, of all railroads in this State, shall be 5 feet and 3 inches."

Even this did not settle matters, though possibly it might have done so if a conflagration had not broken out in a totally unexpected quarter.

Somebody in Wales had a slate quarry. In order to get the product to market the owners built a horse-tramway from Portmadoc to the quarries at Dinas, near Festiniog, a distance of 13¼ miles. The tramway overcame a total rise of 700 feet, the steepest grade being one foot in 68. This was back in 1832.

The Festiniog Railway, as it was called, was the most remarkable railroad in the world at that time, for the builders undertook to make its gage only two feet. Like Stephenson's workmen, they were not clever with the foot rule; so when the road was completed and measured accurately it proved to be 23½ inches.

Strangely enough, no one paid the slightest attention to this miniature railroad. For 33 years it pursued the even tenor of its way, transporting slate by horse-power every working day, and earning money for its owners.

In 1863, the owners awoke to the fact that they were behind the age, so they purchased two locomotives. They were toys, weighing but eight tons.

Gave Free Rides.

But they worked so well that the company, in 1864, began hauling anybody who wanted to ride, free of charge. Next year, some coaches were put on, and then fares were collected the same as on any other road. The enterprise was so successful that the line was relaid with rails weighing forty-eight pounds to the yard, and locomotives weighing ten tons were put on. Still nothing happened.

Finally, in 1869, Fairlie invented a type of engine which was the first attempt at what is now known as the Mallet articulated locomotive. Fairlie took two ordinary locomotives with simple engines and hitched them together, fire-box to fire-box.

One of these Fairlie engines, the "Little Wonder," was built for the Festiniog Railway. The "Little Wonder" weighed nineteen and a half tons. Each end of this mechanical Siamese twins had a pair of cylinders 8x12 inches, and two pairs of drivers twenty-eight inches in diameter.

It could take a trainload of 127½ tons up the grade, and could bring down a trainload of 336½ tons, of which 230 tons was paying load, making a train 1,200 feet long.

The passenger-cars were 10 feet long, 6 feet 3 inches wide, 4 feet 9 inches high, weighed 2,600 pounds, and carried 12 passengers.

In 1869, this toy railroad carried 97,000 passengers, 18,600 tons of miscellaneous freight, and 118,000 tons of slate, earning a total of $118,000.

Such an achievement as this could not fail to attract attention. *London Engineering* wrote up the Festiniog Railway; then every other publication took a turn at it. Imperial princes and royal commissions from Russia, Spain, France, Italy, Norway, Germany, Brazil, and the United States made pilgrimages to Festiniog to see just how small a railroad could be and still earn dividends.

Thought He Was a Showman.

They were followed by so many self-appointed investigators, that Chief Engineer Spooner began to wonder whether he was a railroad manager or a showman.

The success of his road turned his head, and he wrote a book and made addresses to prove that 23½ inches was the proper gage for railroads. About this time India was bankrupting itself trying to build wide-gage railroads.

These matters gave the press an excuse to advocate narrow-gage railroads. The Stephenson gage, thereafter, became standard, and everything less than that was "narrow gage."

Horace Greeley spread the narrow-gage contagion in the United States. Greeley was peculiarly susceptible to new ideas, and the narrow-gage craze in his British exchanges fascinated him. He began to write editorials for the *Tribune* advocating narrow-gage railroads.

The Pennsylvania and Kansas Pacific railroads had the honor of introducing General William J. Palmer as the first narrow-gage railroader in America. Backed by J. Edgar Thomson, of the Pennsylvania Railroad; S. M. Felton and Robert H. Lamborn, of Philadelphia, and Governor A. C. Hunt, of Colorado, he went to Denver and, in 1871, organized and began the construction of the Denver and Rio Grande Railroad, which was a three-foot gage.

When Palmer announced that he had built the first 76 miles at a cost of $13,500 a mile, while the Kansas Pacific had cost $23,000 a mile, Denver became excited over narrow gage.

Everything Was Narrow Gage.

Everything in town from street railroads to cocktails was narrow gage. During the most acute stage of the attack, it was considered the correct thing to refer to the prospector's most useful ally, the donkey, as a "narrow-gage mule."

Other narrow-gage railroads were built up the cañons radiating from the Colorado metropolis. The line up Clear Creek Cañon, which overcomes a rise of 1,700 feet in 13½ miles, was built at a cost of $20,000 a mile, as compared with an estimated cost of $90,000 for a standard-gage road.

Denver, the focal center of the narrow-gage propaganda, created a disturbance that attracted the attention of the whole railroad world. The Russian government fixed a gage of 3 feet 6 inches for new and important lines. India, after a severe contest, formally adopted a gage of 3 feet 3 inches. Carl Pihl, the Norwegian engineer, induced his country to adopt 3 feet 6 inches. France, Belgium, Switzerland, Italy, Austria, and Germany also began to build narrow-gage lines.

As for the United States, the printing-presses could scarcely turn out narrow-gage railroad stock fast enough. A great national narrow-gage convention was held in St. Louis in 1872, at which everything was settled, including the standard height of draw-bars for narrow-gage cars, which was to be 24 inches from the top of the rail to the center of the drawhead.

The Change.

Much was made by the newspapers of the first narrow-gage cars and engines for the Denver and Rio Grande. The coach was 35 feet long, 7 feet wide, 10½ feet high from rail to roof. It weighed 15,000 pounds and seated 36 passengers, 3 abreast, a double seat on one side and a single seat on the other.

The first box-cars were 23½ feet long, 6 feet wide, weighed 8,800 pounds, and nominally carried 9 tons.

The first locomotive, a Baldwin named the "Montezuma," had four drivers, 40 inches in diameter, a pony truck, and cylinders 9x16 inches. The top of the stack was 9 feet 9 inches above the top of the rail. The "Montezuma," which weighed 25,300 pounds, had a tractive power of 512 tons on the level, and of 98 tons on an 80-foot grade.

Nearly every State in the Union began building narrow-gage railroads, nearly all being of 3-feet gage. On February 1, 1876, there were 2,687 miles of narrow-gage railroad in operation in 26 States and Canada, and 7,973 miles were projected.

Gradually the country began to recover from the narrow-gage delirium. The numerous projects for narrow-gage roads were allowed to gather dust in pigeonholes, while the building of them just stopped. A few years later, A. M. Wellington, an eminent authority on railroad engineering, was able to write:

> The irresistible logic of events has practically settled the question; and the belief in the narrow gage as an expedient and defensible system of construction, which from the beginning was founded on illusion and delusion is rapidly passing away.

Traffic Needs Considered.

About the same time, the owners of the broad-gage roads, finding themselves hopelessly handicapped by their inability to interchange traffic with the majority of roads,

which were of standard gage, began to bring their rails closer together. The Ohio and Mississippi, the western end of the 6-foot route between St. Louis and New York, led the way.

On January 28, 1871, the board of directors voted to change to standard gage. Forty standard-gage locomotives and a few standard-gage cars were ordered, and arrangements were made to alter 28 locomotives and 700 cars from broad gage to standard, at a cost of $3,600 per locomotive, $150 per passenger-coach, and $45 per freight-car.

Saturday, July 22, 1871, all broad-gage rolling-stock was disposed so as to clear the track at midnight. At dawn on Sunday, July 23, the work of changing the track from broad to standard gage was begun. At 11 A.M. the entire main line and Louisville branch, altogether more than 400 miles, was finished.

This was a remarkable feat, which demanded system and discipline of a pretty high order. It was not surpassed until 1886. Between May 12 and June 2 of that year, more than 12,000 miles of track in the South were changed from broad to standard. On no road was there any interruption of traffic for more than one day.

The Louisville and Nashville changed 1,800 miles, including main lines and sidings, on May 30, 1886. The total number of men required for this great task was 8,763, an average of four men per mile.

Beginning at four o'clock in the morning of July 9, 1885, the Mobile and Ohio changed more than 500 miles of track from broad to standard gage in twelve hours, interfering with the movement of but one passenger train and a few freights.

One day's cooked rations were carried on push-cars, together with spikes and tools and other necessaries. One broad-gage push-car was kept ahead of the work, and a standard-gage car followed. The best record made by any crew that day was 5 miles of track changed in 5½ hours.

That settled the broad-gage railroad in the United States. Now the only broad gage, so far as I know, is the Mount Washington rack road, which is of 5 feet 7 inches gage throughout its entire length of 3 1-3 miles.

The railroads of the United States to-day are all of standard gage, with double tracks and sidings spaced 13 feet apart from center to center. Some, though, are only 12 feet, or 12½ feet center to center, while a few, including the Illinois Central, are 14 feet. In the South most of the roads are 4 feet 9 inches gage, while a few are 4 feet 8¾ inches. Practically all railroads widen the gage on curves at a fixed rate per degree of curvature, the maximum being half an inch.

But if any man thinks the narrow-gage road has disappeared utterly, he is very much mistaken. The Denver and Rio Grande system still includes 795 miles of 3-foot gage, and there are other narrow-gage railroads in Colorado. There are some 3-foot gage tracks in Pennsylvania, and still others in New Mexico, Utah, Arizona, Nevada, and California, together with some 3½-foot gage.

The Nevada, California and Oregon Railroad, to be 363 miles long when completed, is of 3-foot gage. Massachusetts has a 3-foot gage road, the Boston, Revere Beach and Lynn.

Maine has a weakness for railroads of 2-foot gage, some of which are earning four per cent dividends, while others are earning deficits just like some of the bigger roads. One of the longest of these 2-foot gage roads is the Wiscasset, Waterville and Farmington Railroad, from Wiscasset to Winslow, 61 miles. The Phillips and Rangeley Railroad, also a 2-foot gage, is 50 miles long.

The longest 2-foot gage railroad in the world is the Otavi, from the seaport of Swakopmund, in German Southwest Africa, to Otavi, a distance of 360 miles. Construction on this line was begun in August, 1903, and was finished in 1906.

It was a hard road to build, for native wars deprived the contractors of their first force, while the imported men who took their places spent most of their time striking.

Water was very scarce—so scarce, in fact, that it had to be hauled forty miles.

After the steel was partly laid, water was hauled on trains for a hundred miles to the men at the front. Yet, in spite of these drawbacks, the line, which was built to develop some copper mines, became self-supporting a year after it was completed.

India and Australia have railroads of assorted gages up to 5½ feet. Belgium and France have narrow-gage roads sandwiched in among the standard gage. The Caen, Dives and Luc Railway, in France, of 23½-inch gage, pays seven per cent dividends. Italy has a large assortment of gages, beginning at 33½ inches and running up to standard.

Reduced to its elements, the gage situation at present is just this:

Any man who has the money may build a railroad of any gage he pleases. Then he is at liberty to make it pay—if he can.

BILLY'S UNAVOIDABLE DELAYS.

BY GEORGE FOXHALL.

What Had To Be Done to Prevent the P. S. and N. B. R. R. from Buying Any More Second-Hand Motive-Power.

THE most polite man in the world could not have called the P. S. and N. B. a first-class railroad, and Jim Parkinson was not even the most polite man in New Mexico. Perhaps it is not giving Jim too much praise to say that he was actually the least polite man in New Mexico—or any other Territory or sovereign State in our Union.

What Jim could say of the P. S. and N. B. can, therefore, be readily imagined. This, be it understood, was on ordinary occasions; but what Jim said of the P. S. and N. B. when it made him miss the mail connection with his varnished flier five times in one week was a series of masterpieces in the railroad man's fine art of saying things about a railroad.

This was how it happened. But, first, we shall have to explain a little. Jim did not work for the P. S. and N. B. If you had mentioned such a possibility to him he would have assured you—in terms admitting no debate—that he did not.

The road Jim worked for was the swellest of the swell transcontinental highways. Its road-bed was only equaled by its signaling system; its signaling system by its electric-lighted cars; its electric-lighted cars by its high-speed locomotives, and its high-speed locomotives by Jim; while all were perfect.

But even perfect road-bed, perfect equipment, and perfect engineers must, in this imperfect world, be handicapped in operation, and the handicap of the Southern Transcontinental was the P. S. and N. B.

Now the P. S. and N. B. had at one time been a prosperous little railroad of thirty-two and a quarter miles. That was in the days of the lumber-camps. Gradually, however, the lumber had grown less and less. Finally there was hardly enough lumber to fence a barn-yard.

Farmers were slow in settling the country, and the finances of the P. S. and N. B. sank into such insignificance that the duties of the auditor would have been slightly less wearisome than those of the crossing-tender had the P. S. and N. B. possessed an official of either type—which it did not.

When the Southern Transcontinental was building, prosperity was still hovering smilingly over the P. S. and N. B., and the road was not for sale. Accordingly, the S. T. had been compelled to make a wide détour, adding twenty miles of curves and tunnels and stiff grades to the smaller road's thirty-odd miles of valley track, and the S. T. had never forgiven the owners of the P. S. and N. B.

But hate must give way to convenience; and, when the great rivalry for the mail contracts came about, the S. T. was glad enough to run a couple of miles of track at one end and a couple of hundred yards at the other end of the jerk-water road, and, making a running agreement for two trains a day over the perfectly level short cut, thus secure the contract.

Shortly after this came the slump for the P. S. and N. B., and Wilbur Warfield, president and principal stockholder, had approached the S. T. with a proposition for the sale of the road. The S. T., knowing that its close-shaven running contract was now the chief financial support of the P. S. and N. B., smiled to itself as it reminisced over the millions that Mr. Warfield's obstinacy had cost it on an earlier occasion—and refused to buy.

Instead, it offered a mortgage, which Mr. Warfield, with newly acquired insight, refused to consider.

Now, things were coming to a crisis, and Mr. Warfield was talking things over with his vice-president, master mechanic, road-foreman of engines, and only engineer, Billy MacDonald.

"Billy," he said, "unless we can get the S. T. to buy us by the end of the month, we shall have to accept their mortgage, and you know what that means."

"I do," said the vice-president, etc.

"That piece of motive-power of yours, Billy, ran away with all our salaries for the month and some over, and to run six trains a day, even with the same engine, engineer, and conductor, costs money."

"It sure does. But we had to have that old horse, as you know. The old 726 hadn't a sound flue or connection in her, and every thrust of her pistons threatened to wrap her side rods round her steam dome, and would have done so, only she couldn't make enough steam to more than just move 'em."

"I know, Billy. It was only the mercy of Providence and the cleverest engineer in the U. S. A. that kept her old flat wheels limping on the rails as long as they did. You surely are a wonder when it comes to tinkering, Billy. You certainly have the courage of your convictions. Billy, why don't you resign and go on the S. T. while we still have our self-respect?"

It was a trick of Billy's to continue his conversation where he left off, no matter how long the interruption, when the interruption was particularly distasteful to him.

"And as for that second-hand water-boiler on wheels that you bought from the Atkinson and Santa Maria, I might as well tell you that it's a hop-skip-and-a-jump four-flusher. It hasn't a weak spot in it, relatively speaking, because it hasn't got one spot that can brag over another, an' some day it's going to pieces like the deacon's one-hoss shay.

"Tandem compound! Huh! Tandem compound! What did we want any sort of a compound for? She eats up more coal than a steamboat, and don't go as fast as a snow-plow."

"Why, Billy, I thought you were so tickled over that new-second-hand compound that you hated to stop her even at terminals. Didn't I hear you telling your kid fireman and Jim Parkinson, who was guying you about her, that she was your Arab steed or something? And you certainly have fixed her up to look fine."

Praise is a great wonder-worker. Still, one would hardly imagine that this small commendation was enough to affect the cool-headed young Scotchman.

Whatever it was, whether it was the praise or the sudden remembrance of some forgotten fine point in his "Arab steed," Billy seemed suddenly to change his point of view. He grinned cheerfully. He beamed. He gurgled. He laughed.

"Yes," he said happily. "She certainly does look fine, doesn't she, with her painted boiler and lacquered cylinder-covers, and polished nuts and rods, and her neat little, sweet little dinky side-cranes to swing her front cylinder cases on—all as handy as an operating-room?

"She is one glorious credit to the road and to me. She is inspiring. She is the sign of hope. Cheer up, Mr. Warfield; we'll sell the road, all right," and, still chuckling, Billy made for the door.

Mr. Warfield was alarmed. Had the trials of his position and his affectionate loyalty to the road unhinged the young man's mind?

"I say, Billy," he called after him, "why don't you resign and—" But Billy was gone.

Many people had asked Billy MacDonald that same question, and had received answers that no Chaldean soothsayer could have understood or explained, and Chaldean soothsayers could explain pretty nigh everything, whether they understood it or not.

Jim Parkinson had asked it almost every day, and so had Mr. Warfield; but heretofore the latter had asked it with a twinkle in his eye and a wink toward the portrait of his daughter Maggie, that stood on the presidential desk. Mr. Warfield knew why Billy stuck to the P. S. and N. B., and so did Billy, and so did Maggie. As for the rest, it was none of their business.

And now, Mr. Warfield was genuinely alarmed for his vice-president, engineer, and prospective son-in-law. Anybody who could try to assure him, with—he must confess it—a rather silly grin on his face, that the S. T. would buy the P. S. and N. B. R. R. by the end of the month, this being the tenth, must be on the verge of mental disintegration.

As for Billy, he climbed into his engine and made a slow but successful run to Porterville, hauling three creaking coaches, two cars of miscellaneous freight, and one nearly blind old woman with a nearly blind dog.

Then he made the return trip to Briscombe, minus the freight, and with half a

dozen stolid farm laborers, in addition to the old woman, who never left the train until the final trip, and always at the place where she got on. Billy and the conductor always let her ride, and she always rode, though never going anywhere, because she liked the gentle motion. So did the dog. They were Billy's mascots.

On the second trip out to Porterville things began to go wrong. They had two hours and a quarter to make it in and clear the mail flier. Usually they made it in an hour and fifty-five minutes. Jim Parkinson was pulling the flier. When he had waited ten minutes he began to swear. When he had waited fifteen minutes he continued his uninterrupted swearing, and when he had waited twenty-five he sought the despatcher.

Just as he was in the midst of an oratorical demand for orders to dash at schedule speed over the single track of the P. S. and N. B., and was compromising with orders to flag his way down, Billy pulled in. Jim saw him and dashed down the steps and up to Billy's cab to give him a quick but complete glimpse at the state of his mind.

"What's the matter with that old egg-boiler of yours? If I had a tin, ten-legged Arab nag like that, I'd set him plowing up the Sahairy Desert or doin' somethin' more useful than holdin' up United States mail for a real railroad. A donkey-engine on cog-wheels could haul a train faster'n that old cast-off teakettle."

Jim would have said more, only he hadn't time; and Billy might have replied, but there was nobody to reply to. So he just grinned his lately acquired silly grin at the back of the departing Jim, and, by a wonderful process, managed to assume the most wobegone face for the benefit of the division superintendent of the S. T., who came up at that instant.

"Awful sorry we delayed you, Mr. Summers," he said, "but I lost a crosshead-nut five miles out of Briscombe, and didn't dare move her either way on only one side. She pretty near coughs her soul-bolt out running on two sides, and if we'd gotten permanently laid out it would have meant a worse lay-out for the flier. Had to send my fireman back for a nut."

"Send your fireman back for a nut!" shouted the old man wrathfully. "Send your fireman back for a nut! Nice old postscript of a near-broke road you work for! Send your fireman back for a nut! Why didn't you find the nut and send him back for an engine? Send your fireman back for a nut, eh? Why didn't you make your fireman haul the train?"

Then, evidently losing his wrath in this close survey of the offending decapod, he suddenly exclaimed wonderingly: "Say, Billy, where did you get *all* that paint?"

For a second Billy had to duck in his cab on the pretext of picking up a piece of waste. Then he turned a face full of serious enthusiasm to the super.

"Now, honest, Mr. Summers, don't you think she looks like a pippin? Don't you think she's a credit to the man that decorated her? Don't you think she looks as if she could haul the flier easily? Guess she could, too, with a bit of practise. Of course, any engine can lose a nut. Now, I once—"

But the vision of an engine going through training stunts to haul his crack flier was too much for Mr. Summers, and, with a disgusted grin, he made his escape from the man he had come to rake over. Even an irate superintendent has somewhere a hidden sense of humor.

But if Mr. Summers had a sense of humor, it was put finally out of commission when a similar accident delayed the flier over half an hour the next day.

When the third day brought an even longer delay he could have eaten the P. S. and N. B., its lone decapod, and Billy, without even the smallest grain of salt.

On the fourth day Billy managed to clear, and he patted his Arab steed affectionately on her double-jointed cylinders and called his fireman to witness that not a sweeter-running piece of machinery was carried on wheels. The fireman, who considered Billy the greatest mechanical genius of the age, agreed with him blindly.

But the fifth day was another "unavoidable delay," and the sixth day saw tragedy stalking grimly over the ties.

It was at the fill, across the Deep Dip Swamp, where the beautiful pride of Billy's heart blew out her left high-pressure cylinder-head. Billy choked her off and looked solemnly across at his fireman.

"Now, wouldn't that hot your boxes, Ben? Here we are over the swamp, an' I've got to tie up that bad wing an' run her in on one side. Now, Ben, I know darned well that this willing engine can't do what she can't do, don't I? Yes, I do. And what she can't do is to pull this train into Porterville with her right side in the condition her right side is in at this minute. Didn't we hear that right side hammering like a boiler-shop this morning?"

"We certainly did, Billy," attested Ben.

"So what shall I do? Ben, I'll show you some mechanical tricks. We take this block and tackle and this wrench, and we climb out of this cab—"

Billy backed down onto the toes of the conductor, who nearly rolled backward into the swamp—"and we go to this neat little, dinky little crane with which all P. S. and N. B. engines are equipped, and we proceed to remove this forward cylinder cover with a view to doing the same thing to the pounding in the low-pressure cylinder—which we do. Then we tie up our broken member and proceed on our way without having held up the snobby flier of the S. T. more than an hour and forty-two minutes."

Billy quickly proceeded to suit the action to the words. He swung the little crane out and rigged up his block. Then he hammered and wrenched and pulled and heaved and propped, until, in about half an hour, the front cylinder cover was swaying uncertainly from the crane, while Ben, the fireman, clung for dear life to the rope that supported it, for there was no check-pawl on Billy's crane.

Billy was just diving into the inner mysteries of the exposed cylinder, when the exhaust of a hurrying engine was heard.

"Ha," he said, without looking up, "Jim comes to seek us. We shall show him what an expert engineer ought to know."

Billy was so engrossed with his work that he did not look up until Jim Parkinson's voice caused him to jump suddenly. He dropped his wrench on the toes of the devoted Ben, who was struggling to make fast his cumbersome charge.

Ben let everything go to grab his foot, and before a hand could be raised the cylinder-cover slipped down, dragged the fast-weakening crane from its bolts, and rolled, with an appearance of thankful finality, into the swamp.

Billy looked in despair at Parkinson:

"Why, Jim, what you pushing the wrecking outfit for?"

Jim was businesslike. He was too businesslike even to curse the P. S. and N. B. The elephantine proboscis of the wrecking crane hovered hungrily over the pitiably dismantled tandem compound.

"Billy," said Jim, "you've had a wreck, or the second cousin to one, on this unfortunate road pretty near every day this week. Why shouldn't I bring the wrecker? You're a friend of mine, Billy; but there's a man on that flat car with a shotgun and instructions to help me move this wreck. Has the P. S. and N. B. any passengers?"

"I must admit that it has, Jim," answered Billy, stating the fact with the seriousness it deserved. "It has one aged female woman, nearly blind, and one aged female dog, nearly blind, also. Besides that it has one car of cauliflowers from Farmer Perkins; and nothing more. The old dog has two teeth, but they are both in one jaw, so she is harmless. The old lady and the cauliflowers are ditto."

"Conductor," said Jim, turning to the inarticulate youth who officiated in that capacity for the P. S. and N. B., "remove your passengers to the baggage-car of the flier, and beware of the shotgun. We are going to remove the wreck."

Jim's removal of the wreck — engine, coaches, and car of cauliflowers — is local history in that part. To get the engine in shape to be pushed back would have meant two hours' delay, for when Billy had jammed on the air-brake it refused to be jammed off. So, piece by piece, the rolling-stock of the P. S. and N. B. was hoisted by that hungry proboscis and dropped into the swamp, while Billy looked sadly on.

Then they pushed on to Briscombe, and there Jim handed in a telegram. It read:

W. B. SUMMERS, DIVISION SUPERINTENDENT, S. T. R. R., PORTERVILLE:

Have dumped entire motive-power and rolling stock of P. S. and N. B. from their own tracks into Deep Dip Swamp. Advise president to buy their old road and stop cost out of my pay. PARKINSON.

Five days later Wilbur Warfield, Miss Maggie Warfield, and William MacDonald were laughing happily over a communication from the president of the S. T., in which the Transcontinental offered the stockholders of the P. S. and N. B. seven hundred thousand dollars and the assuming of all indebtedness for their title to the right-of-way, etc., etc., of the P. S. and N. B. — all the officers of the road to be taken in, forming a new division with a division superintendent.

There was a postscript, stating that this prompt action was being taken to prevent the P. S. and N. B. acquiring any more second-hand motive-power.

"Billy," said Mr. Warfield, "before I accept, I resign and elect you president. That'll make you division superintendent."

"And I," said Billy, "am going home to write Jim Parkinson to come and be best man at the wedding."

Ten Thousand Miles by Rail.

BY GILSON WILLETS,
Special Traveling Correspondent of "The Railroad Man's Magazine."

"TO the ladies of the rail—God bless 'em!" At last Mr. Willets, in his long journey in quest of tales to tell, has gathered the bunch of yarns we have wanted—and the heroine of each one is a member of the fair sex. Each heroine really had something to do with railroad life—something that was far more tangible than riding in a passenger-coach.

We are glad to be able to hook up to just such stories as these. The influence of woman permeates all branches of American industrial life, and the part that she plays in the great American railroads—whether it be the fair stenographer or the G. M., or the wife of the humblest tallow-pot—her interest in all that makes this great, throbbing railroad life possible is as keen as that of a man.

"The mere presence of women is a great harmonizer," said a great French philosopher, whose think-nozzle never became clogged. We agree with him and rise again to the toast: "To the ladies of the rail—God bless 'em!"

No. 4.—SOME RAILROAD GIRLS I'VE MET.

A Necklace of Bullets—Edith Jarnagin, the Despatcher—The C. C.'S Stenographer—Couple No. 3200—The Bet She Lost—The B. and O. Polar Expedition—When "Mother Allen" Moved.

A YOUNG woman riding a Mexican pony loped past the shack bearing the big sign, "Saloon," near the right-of-way of the new St. Louis, Brownsville and Mexico Railway, at Brazoria, Texas, sixty miles south of Houston, the northern terminus of the road. The line was then building down the Texas gulf coast, and Brazoria was the "front."

Within the shack were gathered a number of the railway-construction gang and a few graders; and when the horsewoman passed one of the track-layers said:

"It's the lady doctoress."

"Prettiest lady between King's Ranch and Corpus Christi," said a grader.

"It's third-drink time," said a third member of the construction outfit, "and it should be unanimous in our midst that we take said drink standin' up in honor of said lady doctoress."

In response to this proposed toast, a grader known as "Miguel the Mexican," uttered a certain remark which met with such vehement disapproval of all the other men present that they "allowed" it would be a good thing to swing Miguel from the cross-arm of one of the telegraph-poles that had recently been planted beside the new right-of-way.

That's what the outfit told Miguel—just to scare him.

Pretending to be in earnest, they dragged him out to a telegraph-pole and put a lariat around his neck. Just then a Texas ranger,

one well known to the construction outfit, rode up and expostulated against the proceeding.

The boys took him aside, informed him that they were merely playing a joke on Miguel, and requested him to "sit out of the game."

At the same time, Miguel, scared half to death, suddenly turned grim comedy into dire tragedy.

Slipping free of the noose, he rushed to where the ranger was sitting on his horse, leaped into the saddle behind the rider, whom he pinioned with his arms while urging the horse into action with his heels.

The animal, guided by Miguel, who had seized the reins, dashed away toward a deep, dry arroyo.

On the edge of the abyss the horse planted his hoofs, refusing to make the leap, whereupon Miguel performed a horrifying act, for which he could not account later except on the ground that the threat to hang him had driven him crazy with fear, so that he hardly knew what he was doing.

While holding the ranger in an iron grasp with one arm, he used the other to drive a knife deep into the horse's flank.

With a pitiful neigh of pain, the beast reared, and was about to take the fatal leap when the ranger, with almost inhuman strength, freed himself from the Mexican's grasp, secured a hold on the reins, and turned the horse on its hind legs.

As the steed then sped away from the arroyo, Miguel lifted his knife as if he intended to stab the ranger.

A pistol-shot rang out, and the Mexican tumbled from the horse. One of the construction-gang had fired that shot, taking the chance of hitting the ranger instead of the "greaser."

An hour later the "lady doctoress" came riding back past the shack, in front of which she found a number of men gathered around one who lay on the ground. After asking what had happened, she was told that Miguel the Mexican had been shot and was about ready for a coroner.

Springing from her horse, the "lady doctoress" knelt over the man lying on the ground, examined him with a few swift movements, seemed to be in doubt about something, then put the crystal of her watch to the man's lips.

"Did you mean to bury this man?" she asked presently, taking a look at her watch. Receiving an affirmative answer, she added:

"Then you would have buried him alive. I think his life can be saved. He must be carried over to my office at once. Hurry, please."

Three weeks later, "Miguel the Mexican" was able to walk, and the construction men promptly ordered him to leave the region in a hurry.

Soon after that, the "lady doctoress" was seen wearing a bullet attached to a chain around her neck. It was the bullet she had extracted from Miguel's body. It indicated that she had saved the life of a human being.

Time passed, and still the "front" of the new Texas railroad was at Brazoria.

One day the construction train met with an accident, which was followed by a shooting affray. The "lady doctoress" attended to the men injured in the railroad mix-up, and saved the life of the man hit when the lead was distributed. In a short time she appeared with two bullets pendant from the chain at her throat.

HER NECKLACE CONTAINED NO LESS THAN TWENTY BULLETS.

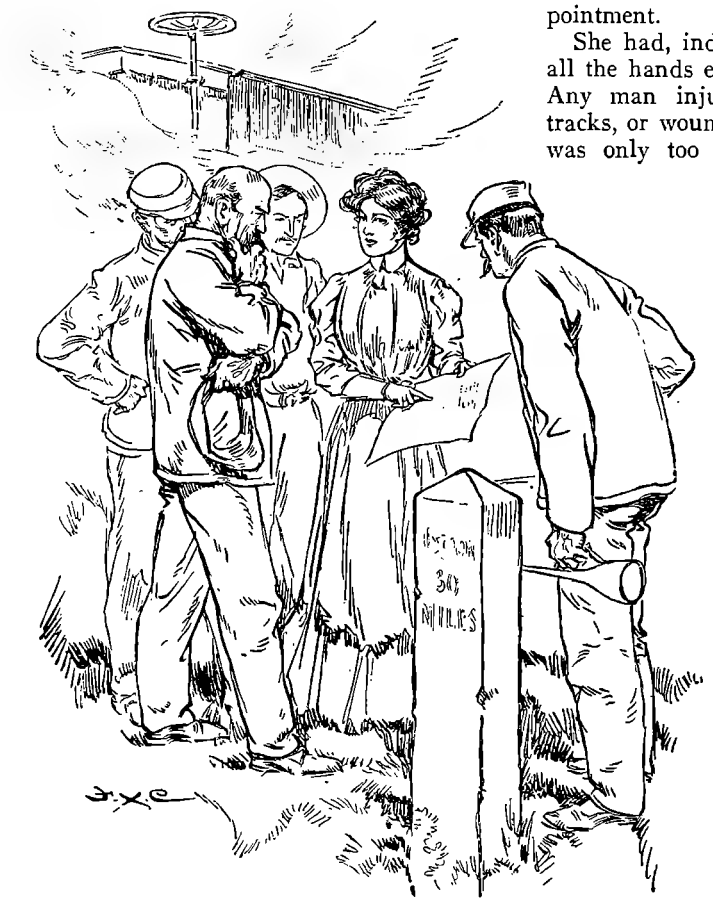
Months passed, and the road was nearing completion. Many accidents had occurred in which men of the construction outfit were injured.

Many shooting scraps had taken place, and the physician who attended those who were

injured within twenty miles of Brazoria was the "lady doctoress."

It was she who probed for bullets after the shooting scraps, and now her necklace contained fifteen or sixteen bullets, each one representing a separate surgical operation and a life saved.

Genéral offices of the railway were opened at Kingsville, a little south of the midway point on the 375-mile line between Houston and Brownsville. There, General Manager Rodgers one day said to Superintendent Finnegan:



SHE SET DOWN THE APPROXIMATE LOCATION OF EVERY TRAIN.

"We need a surgeon on the Brazoria division. How would it do to give the appointment to that young woman up there who has done such good work during the period of construction—Miss Herzog?"

"Dr. Sophie Herzog?" replied Superintendent Finnegan. "Never heard of a woman railroad surgeon, did you?"

"No. But that makes no difference. Miss Herzog has proven over and over again that she's the equal, if not the superior, of any male physician on the line."

The result was that Dr. Sophie Herzog was appointed a surgeon of the St. Louis, Brownsville and Mexican Railroad, with a district embracing some fifty miles of line up and down from Brazoria. Every man on the line was glad to hear of the appointment.

She had, indeed, made herself beloved by all the hands employed on the new railroad. Any man injured in an accident on the tracks, or wounded as the result of gun play, was only too glad to be attended by the "lady doctoress" of Brazoria.

No woman in all the region was so highly respected nor so thoroughly admired by the railroaders as was Dr. Sophie Herzog.

The new road opened for business, and had been running regular trains for two or three years, when, early in 1909, a surgeon of the Illinois Central Railroad paid a visit to the Texas gulf coast, making a stop at Brazoria.

There he met Dr. Sophie Herzog. Having been shown the now famous necklace of bullets, the Illinois Central surgeon remarked:

"There's certainly no dearth of human target practise down this way."

"Is that not always the case when a new railroad pushes through a sparsely-settled region like this?" answered Miss Herzog.

One year later, I met that Illinois Central surgeon in New Orleans, whither he had come to attend a convention of railroad surgeons connected with the various roads traversing the Southern States. He told me this story of one who, so far as he knew, was "the only woman railroad surgeon in the United States, if not in the world."

"And her necklace, when I visited Brazoria last year, contained no less than twenty bullets," the Illinois Central surgeon added. "Each bullet represented a surgical operation, while the unique ornament, as a whole, meant that my confrère, Dr. Sophie Herzog, had saved the lives of no less than twenty

men connected with the new railroad which B. F. Yoakum built down to the southernmost town in the United States."

Long ago, I found that the wives, daughters, sisters, sweethearts, and women-friends of railroaders read THE RAILROAD MAN'S MAGAZINE quite as much as the railroad men themselves. This is, then, a railroad woman's magazine, as well as a railroad man's magazine. So here is an all-heroine group of tales of certain of the girls in Dixie camps.

The Train-Despatcher Girl.

The engineers, conductors, and other trainmen of the Chattanooga Southern Railway shook their heads when Miss Edith Jarnagin was made train-despatcher in the general offices of the road, at Chattanooga.

Edith Jarnagin did not become the czarina of a train-sheet by any haphazard chance, by pull, or by favoritism. She earned that sheet, and this was what she did:

For several years she had been an expert telegrapher, holding a job at a station on the Chattanooga Southern, below Chattanooga. One morning there was "wire trouble" of a kind never before known in that region. The electrical disturbance was frightful, mysterious, even appalling.

When operators opened a key, brilliant sparks would fly out. The wires made strange noises whenever an operator tried to send a message. Fuses burned out, communication between all stations and the despatcher's office was cut off; and, for five hours, trains had to run without orders and get through the best they could.

Most of the trains didn't get through at all. They got tangled up in bunches. Passenger engineers found themselves on side tracks, while freights monopolized the main tracks.

At the station where Edith Jarnagin was operator, no less than seven or eight trains came to a standstill, all having run so far as they could without orders.

In this tangle of trains there was a special which positively had to be moved, and the problem confronting the train crews was—how to get past the stalled trains.

Conductors and engineers argued and discussed ways and means; trainmen butted in with advice; and section foremen suggested this and that.

All the while, the young lady operator in the station sat figuring on a big sheet of paper. She set down the approximate location of every train on the thirty-odd miles of track between her own station and Chattanooga.

She then drew a plan of all the tracks, main, side, switch, and "Y," within miles of where she sat. Having looked, she leaped—out to the arguing train crews.

It took her two minutes to show the freight engineers exactly what to do with their trains, and to convince the passenger men of the movements they could make. She showed, indeed, that by moving all the stalled trains in accordance with her plan, the special could proceed at once and get to the end of the line without further delay.

The work was done, and well done, just as she had suggested.

A few days later the general manager sent a message to Edith Jarnagin asking her to come to Chattanooga to see him.

Wondering if she was about to be "laid off," or "jacked up," or "fired" for some mistake or misdemeanor, Miss Jarnagin traveled to Chattanooga and hurried to the general offices, where she was ushered into the general manager's sanctum.

"Miss Jarnagin," said the general manager, "I learn that you have a head for mathematics such as a train-despatcher need possess."

"Not at all, sir."

"And that you have strong nerves, quickness, and tact—such as make a successful train-despatcher."

"No. It's a mistake, sir."

"And that you possess fertility in expedients for overcoming delays and providing against accidents—these being also the qualifications of a good train-despatcher."

"Nothing of the sort, sir."

"All of which," continued the general manager, "have militated in your favor to the extent of inducing me to offer you the position of train-despatcher at these headquarters."

"Oh, no, sir! I couldn't think of it!"

"Very well, miss, the matter is settled. You may report at once to the chief train-despatcher and begin work."

Next day, conductors and engineers of the Chattanooga Southern shook their heads from side to side. They were now receiving orders from a girl train-despatcher, and they predicted all sorts of terrible mixups.

Weeks passed, and the conductors and engineers still shook their heads—not from side to side now, but up and down. The headshaking had become a nodding.

Edith Jarnagin had made good, and the boys were proud of the first girl train-despatcher in the railroad camps at Dixieland.

The C. C.'s Stenographer.

Among the clerks in the office of the master mechanic of the Virginia and Southwestern Railway, at Bristol, Tennessee, was a general air of expectancy. Everybody was on the alert. Every man appeared earlier than usual on that morning in January. Even the master mechanic himself arrived fully five minutes ahead of his customary time.

A new stenographer was expected that morning. She was very pretty, it was said.

Certain improvements were noted in the sartorial appearance of the chief clerk to the master mechanic, Proctor Brown. For example, Mr. Brown's shoes had gathered an unwonted shine; the necktie he wore had never before been seen in that office; and the crease in his trousers had a razor edge.

The new stenographer was coming to work exclusively for the chief clerk.

On the stroke of nine, Miss Carrie Corbett, stenographer, entered.

She had arrived only the night before from her home at Morristown, Tennessee, and was a total stranger to all in the master mechanic's office—in fact, to all Bristol.

The instant and unanimous verdict in the master mechanic's office was that nothing lovelier in feminine apparel had ever been employed in any department of the Virginia and Southwestern.

With lightning-like flashes out came the long rapier pins from her picture hat. Then, in a twinkling, sheets of typewriting paper were clasped around the lower ends of her sleeves, forming protective cuffs. In a jiffy off came the cover of the typewriting machine.

In a voice alluringly sweet and low, Miss Corbett said:

"All ready, Mr. Brown."

Chief Clerk Brown cleared his throat, moistened his lips, and began dictating.

"Biff! bang! whizz! sizz! zip!" answered the typewriting machine, registering words with the rapidity of an electric piano playing a galop.

Brown accelerated his talking gait, but the machine stayed right with him, neck and neck. Then he tried pouring out words with the velocity of a campaign spellbinder. Still the machine stayed right with him. When he paused for half a second, the operator twirled her thumbs and let it become known by her expression that she was indescribably bored by the manifestly slow pace at which correspondence moved.

"Looks like you're going a hundred words a minute, Miss Corbett," panted Chief Clerk Brown, mopping the sweat of honest toil from his brow.

"Hundred and eleven's my record," answered the new stenographer. "But I see I'm going to fall off in speed in this office for lack of practise. I can do a hundred a minute blindfolded."

Three weeks passed, a mere eighteen days of toil, in the master mechanic's office. On the first day of the fourth week of Miss Corbett's engagement, Chief Clerk Brown said to her:

"Take this, please." The words began rolling from his mouth like wheels down hill, the machine keeping pace, as usual.

"Cross all that out," said Brown suddenly, "and take this instead. Begin this letter with 'Dear Miss:'"

"Miss who?" snapped the operator.

"I'll let you know later, Carrie."

"Company letter-head?"

"No, Carrie. Private. All right? Let her go!" And Brown dictated this:

DEAR MISS:

Having tired myself to exhaustion in repeated and futile attempts to feed words fast enough to please a typewriter-girl who eats up whole stacks of dictionaries faster than any locomotive on the line eats tons of coal, I yearn for rest, and believe that the only way to get it is to *fire* the typewritist. As you have known her since she came into this world, I write this to ask if you think she would object if the notice of dismissal were put into her hands in the form of a certificate of marriage. Please wire answer immediately.

Having dictated this, the chief clerk made a hurried exit from the room, and had a long talk with his boss, the master mechanic.

When Brown, in the course of time, returned to his own office, his stenographer was not there; neither was her picture hat, nor her deadly hatpins, nor her paper cuffs, nor anything else that was hers.

On his desk, however, Mr. Brown found this message, written on a telegraph form:

DEAR SIR:

Replying to yours of even date, I beg to state that though my friend already regards herself as fired, yet she will meet you this P.M., at four o'clock, at the First Presbyterian Church of Bristol, Tennessee, to receive the formal notice of dismissal as per your favor of this date.

At 4 P.M. that January day of 1910, the

ceremony took place. When I arrived at Bristol in February, they were just the happiest couple in all Virginia.

Proctor Brown, chief clerk to the master mechanic, had then in his employ the slowest-speeded typewriting artist in Tennessee, and his speech was now like unto the drawl of Mark Twain.

The chief clerk to the master mechanic was giving his dictating apparatus a holiday.

Couple No. 3,200.

Bristol, the scene of the romance just narrated, is one of the most popular of all the Gretna Greens on southern railway lines.

The main street is part of the boundary line of Virginia and Tennessee, thereby giving the town the distinction of being half in one State and half in the other. Most everybody down there writes the address like this: "Bristol, Virginia-Tennessee." The "wizard of the Bristol Gretna Green" is Parson Burroughs. At the time that I visited Bristol, his books showed a total of over 3,200 couples who were wedded in his parsonage.

DID THE SPOTLIGHT MAN INFLICT THE TORTURE?

The chief reason for the use of Bristol as a Gretna Green is this: Under the Virginia laws, consent of parents is needed up to a certain age, while, under the Tennessee laws, you may marry at any old time without consulting the wishes of pop or mother.

Naturally, Rev. Burroughs's parsonage is on the Tennessee side of Bristol's main street, and a number of his patrons are brides wishing to be joined in wedlock to railway men, especially those of the Norfolk and Western, the Southern Railway, the Virginia and Southwestern, and the Virginian Railway, all of which meet at Bristol.

Just before I reached Bristol, Parson Burroughs married couple No. 3,199.

"Now," said the good man, after No. 3,199 had departed, "just one more happy pair, and I'll round out an even thirty-two hundred."

Hardly had Parson Burroughs spoken, than—buzz! buzz! sounded through the parsonage. The electric door-bell was ringing.

The housemaid flew to the door and presently ushered into the parson's study a blushing bride-to-be and an anxious-looking groom-to-be, both from Virginia, of course. She was a "railroad girl" and he a Norfolk and Western operator from Rocky Mount.

"Pearsey McNeil," said Parson Burroughs, "do you take this woman—? Margaret Partlow, do you take this man—?"

"I do."

"Amen!" concluded the parson. "And now, my children," he added, "you're No. 3,200, of which, perhaps, over a thousand were, like yourselves, railway folks. And I allow that, when I make the record public, Brother Evans, over at Elizabeth City, will be somewhat astonished at the figures."

The Elizabeth City to which the good Parson Burroughs referred was a second Gretna Green for couples from Virginia, this rival town being just over the boundary in North Carolina, on the Atlantic Coast Line.

It also happened that, on the very same night on which couple No. 3,200 came to Parson Burroughs, another couple in railway life appeared at the Elizabeth City Gretna Green to be united by Parson Evans.

This couple had come down from Norfolk, the groom being Keeling Thomas, manager of the Norfolk News Company, and the bride was Lotta Lowery.

They really had no need to elope, for the parents on both sides had given their consent, and everything was lovely. But they ran away all the same—from the great number of their railroad friends.

Because, when the railroad men of Norfolk had learned that the manager of the Norfolk News Company intended to marry pretty Lotta Lowery, they prepared to celebrate the occasion with a big noise. They secured scores of pots and pans and cowbells. Horns and whistles and firecrackers were also brought into the program. They planned a noise that would have made the battle of Manila but the cheeping of a spring robin.

Hearing of all these preparations, the bride-elect said to the groom-elect:

"Let's give them the slip. Let's fly to the Gretna Green at Elizabeth City!"

That's why they appeared at the parsonage of Rev. Evans.

"But we'll get 'em yet," said the railroaders at the Norfolk Station. "They're returning here to-night, and it has been announced that they will occupy a box at the Colonial Theater. We'll get 'em, all right."

That night, at the Colonial Theater, the spot-light man had orders to train his light directly on the bride the moment she appeared in the box, and to keep it on her during the entire show.

Then, too, one of the comedians was given a ballad written by one of the bridegroom's friends entitled, "When the Boss of the Newsbutchers Came Back with His Bride."

Thirdly, all the instruments of noise were distributed among the railway men and others in the audience, the plan being to let loose the din the moment "The Boss of the Newsbutchers" appeared in the theater.

Did the spot-light man inflict the torture? Did the comedian sing his ballad? Did the audience unleash the noises?

No! "The Boss of the Newsbutchers" and his bride went to another theater.

The audience, the spot-light man, and the theatrical company cried as one man: "Stung!"

Meantime, Parson Burroughs, at the Bristol Gretna Green, had made public the fact that he had joined couple No. 3,200 in holy wedlock, and he felt sure that Brother Evans, at Elizabeth City, would gasp with astonishment.

"Only thirty-two hundred!" exclaimed the Elizabeth City parson upon hearing the news. "Dull marriage market over there at Bristol. Now, my city has a record to date of over four thousand wedding ceremonies performed for couples from Virginia, including, perhaps, some fifteen hundred brides of railroad men."

And all Bristol cried as one man: "Stung!"

The Bet She Lost.

The Senate of Georgia sat in solemn conclave, listening to a speech by one of the "cracker" Senators on "Why the Railroads of Jojah, suh, Should Be Pushed Into the Atlantic Ocean," or something to that effect, when suddenly one of the listeners, after looking up to the visitors' gallery, whispered to his nearest colleague:

"That young lady up there, suh, is the daughter of the general passenger agent of the Seaboard Air Line here in Atlanta. Our friend's invectives against the railroads probably interest her exceedingly."

"What's more," answered the colleague, "she's the granddaughter of General Stonewall Jackson, suh, and I propose to move that we take a recess in order to do her honor."

A quarter of an hour later, after the Senator had finished his harangue against the dreadful railroads, the Senator who had told his friend that the young woman in the gallery was Stonewall Jackson's granddaughter arose and suggested that the Senate, as a body, take a recess of half an hour in honor of the distinguished visitor.

The recess went into effect immediately, and the young lady was brought down on the floor, all smiles and blushes and filled with astonishment.

The name of the beautiful young girl to whom all the Jojah solons now paid their respects was Miss Julia Jackson Christian. Her companion of the occasion was Mr. Rand Preston, of Charlotte, North Carolina, a former legislator of his State and a lawyer of prominence in his town.

That same night, General Passenger Agent Christian, of the Seaboard Air Line at Atlanta, said to his daughter:

"So you ran away to the Senate to-day, did you, hand in hand with Preston?"

"Yes, father," replied Miss Julia. "And if you don't watch out," she added, with a smile that dimpled her cheeks bewitchingly, "we'll run still farther away and — join hands forevermore."

"Bet you ten dollars, Julia," said Mr. Christian, "that no romantic child of mine ever could elope and marry without my stopping the proceeding—if I wanted to."

"What for? A wedding present?"

"No. To pay your gambling debts. Didn't you bet me ten dollars that you would stop any child of yours from running away to marry? And didn't I raise you ten? Twenty dollars, please."

"No, my dear, I won that jackpot myself."

"How do you mean, father?"

THE BRIDEGROOM EAGERLY PEELED OFF A TWENTY AND HANDED IT TO HIS FATHER-IN-LAW.

The very next day Mr. Christian received a telegram reading something like this:

> En route for Salisbury, North Carolina. Will marry at midnight. You will have to hurry. I raise your ten to twenty and play my hand to win with Rand Preston as partner.

Twenty-four hours later, when the happy runaways returned to Atlanta, having been married in Salisbury in the presence of dozens of friends who had been let into the romantic secret, the bride said to her father:

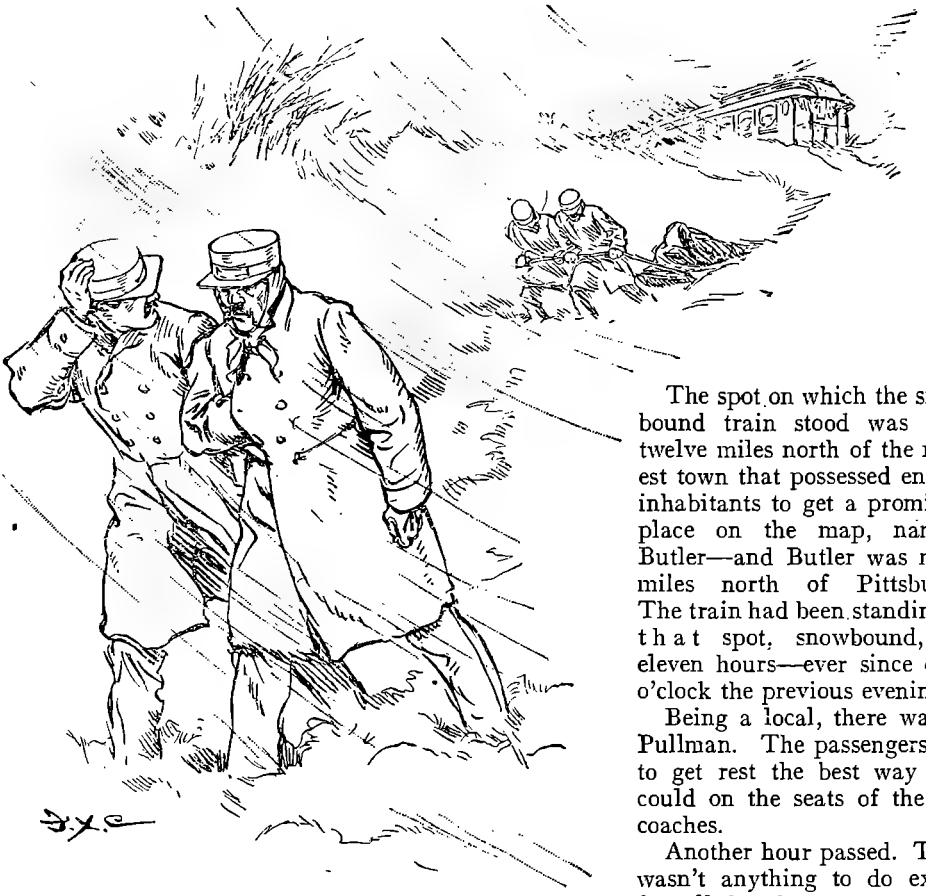
"Twenty dollars, please."

"I said I could stop the proceeding—if I wanted to. Well, I didn't want to. Twenty dollars, Mrs. Rand Preston, please."

And the general passenger agent of the Seaboard Air Line smiled grimly as the bridegroom eagerly peeled off a twenty and handed it to his father-in-law in behalf of the very up-to-date railroad girl who had lost the wager.

The Baltimore and Ohio Polar Expedition.

Conductor Leary awoke and looked out of the frosty car window. A trainman on the



THE TWO MUSHERS STARTED AHEAD TO PICK A TRAIL FOR THE "DOGS."

seat opposite, woke up, stretched himself, and did the same.

"The whole country looks like a picture out of one of Peary's arctic stories," said Conductor Leary.

"And the snow still coming down in sheets," yawned the trainman.

"We may be stalled here some hours yet," the conductor said cheerfully. "It's good there ain't more women aboard."

"Yes! Only two women-folks, thank Heaven!" responded the trainman.

"One of 'em looked like she wasn't feelin' well when I last passed through her car about three o'clock this morning," the conductor announced.

"Sufferin' from lack of food, lack of sleep, or lack of warmth?" asked the trainman.

"You can search me." The conductor shrugged his shoulders in the fashion of the Pennsylvania Dutch.

This occurred on train No. 9, of the Baltimore and Ohio Railroad, just at daybreak.

The spot on which the snowbound train stood was some twelve miles north of the nearest town that possessed enough inhabitants to get a prominent place on the map, namely, Butler—and Butler was many miles north of Pittsburgh. The train had been standing on that spot, snowbound, for eleven hours—ever since eight o'clock the previous evening.

Being a local, there was no Pullman. The passengers had to get rest the best way they could on the seats of the day coaches.

Another hour passed. There wasn't anything to do except for all hands to try to keep warm and wait for a snow-plow to come up from Butler and dig out the train. Just as Conductor Leary's watch announced eight o'clock, an excited whisper passed from one to another of the passengers, and presently there was a wild commotion in all the cars.

To enter into particulars, it may be stated that, at exactly 8.01 A.M., one of the two women passengers rushed into the car in which Conductor Leary and the trainman were trying to snatch one more cat-nap, and announced that the stork had entered the forward coach, bringing a baby girl.

"And the mother's got to be taken to a hospital right away," stated the herald of awful tidings.

Conductor Leary was equal to any emergency of railroading. With all his readiness, he spoke as follows:

"Madam, please assure the mother and child that they shall be transported at once to a proper place."

He turned to his trainman, saying: "Come with me up to the baggage."

On the way forward, he continued: "We've got to fit out a polar expedition just like you read about in Peary's stories. We've got to have a sled and cushions for the sled, and dogs and harness for the dogs, and mushers, whatever those are."

In the baggage-express car, Leary gave orders for the men there to yank off two of the wooden slats forming the latticed partition separating the baggage from the express.

"They'll do for the runners of the sled," quoth Leary.

While the men yanked off the slats, Leary himself removed the screws from the hinges of the cupboard door.

"Now," he said, "with these same screws we'll fasten this door to those runners."

A few minutes later, as good a sled as a Peary could want in an emergency had been constructed. Upon it were placed a lot of empty mail bags for cushions. Then Leary pulled the bell-cord out by the roots and cut off yards and yards of it, saying:

"And there's the harness for the dogs."

"Who's the dogs?" asked a trainman.

"You're one of 'em," said Leary. "And the other shack will be the second dog. See that smoke there?" (pointing through the window)—"well, it's about three miles off. You two will have to pull this sled to that smoke. The smoke is coming out of the chimney of a farmhouse, and farmhouses usually contain all the concomitants for a proper reception in such a case as this."

"You talked about needing mushers, whatever those are," said one of the trainmen who was to play dog. "Who'll be the mushers?"

"I will be one musher," said a traveling auditor of the Baltimore and Ohio, who had come into the baggage-car to get away from the wild excitement of the coaches.

"I'll be a musher, too," said a traveling inspector of the Baltimore and Ohio.

The sled was launched upon the beautiful snow, and the mother and child were tenderly carried out and laid upon it. The two trainmen got into the bell-rope harness, ready to pull for the big smoke. The two mushers started ahead to pick a trail for the "dogs."

"Peary himself couldn't do better," said Conductor Leary complacently. "But look here!" he added, turning to the mother. "where does your friend hail from? I must report this increase of population, and I need exact details."

"She's from a place called Frost, and was on her way to Butler," she replied.

"Frost, eh? I've an idea!" cried Leary. "What's the matter with this train-crew adopting this kid right here and now and naming it Frostie, in honor of the town its mother hails from? Frostie listens kinder girlish, doesn't it? All right! Frostie let it be. And I move that this crew"—here waving his hand to the engineer, the fireman, the two trainmen, and the two traveling railroad men—"I move that we railroaders give three cheers for Miss Frostie, and that herewith, too, we pledge Miss Frostie the protection of this train-crew as long as a man of us shall live."

"Hooray! Hooray! Hooray!" cried all the crew, swinging their caps in the air, and letting the snow fall upon their bared heads.

"You're off!" yelled Conductor Leary. "You're the first polar expedition ever sent out by the Baltimore and Ohio."

For a long time after that, whenever a Baltimore and Ohio man met Mrs. Mary Debeur at the station at Frost, Pennsylvania, he would ask:

"And how's *our* little Miss Frostie?"

"Mother Allen."

A box-car, minus its trucks, stood near the railroad tracks and in it lived the best-known railroad girl on the Delaware division of the Pennsy.

The car stood there for fifty years, and was removed only two years ago. It was the first freight-car run over the division, and was presented by the railroad to a section foreman named Edward Allen, away back in 1856.

Allen died in 1893. His widow, Amanda Allen, is the heroine of this tale covering a half-century of life in the famous box-car at Seaford, Delaware.

During that time she first "sistered," and later "mothered," the men connected with the railroad between Clayton and Cape Charles.

When Amanda Allen and her husband first took possession of the home presented to them by the railroad company, they opened a grocery store in one end of the car and established living quarters in the other end. Allen grew rich, had no use for banks, and stored his money in chests in the car. Thus he left his widow considerable "funds in hand."

Seven children were born to them in the car, and all were brought up to manhood and womanhood within that unique home.

Whenever a railroad man of the Delaware division got into trouble, he went to "Sister Allen" for advice, and sometimes for more

substantial help—which he invariably received."

Every Christmas, and also on their birthdays, "Sister Allen" remembered the boys with useful presents. Railroaders who lived at Seaford and were taken sick were nursed by "Sister Allen."

"No," she said. "This car is dear to me. It has many precious memories. I'll not leave it. Besides, if I moved into a real house, the railroad men would not feel privileged to drop in as they do now whenever they need a helping hand. I'll stay here."

Toward the end of her life, one of "Mother Allen's" own sons and two of her railway sons, anxious to see her settled in a real

THEY OPENED A GROCERY-STORE IN ONE END OF THE CAR.

When her husband died, "Sister Allen" was then sixty-four years old. The day after the funeral of her life-mate, a track-walker was seriously hurt, and she had him brought into her box car, where she nursed him back to health.

It was he who changed the title of "sister" to that of "mother," and from that time the railroad men called her "Mother Allen."

It then came to pass that her children and her railroad sons began begging her to buy a more comfortable home for her old age.

house, such as she could well afford to buy, made these amusing announcements:

"I will never get my hair cut again, Mother Allen," said one of the railroad sons, "until you move out of this car."

"And I," said a second, "cutting the top button from his coat, "will never permit this button to be sewed on again, nor will I buy a new coat, until you move."

"And I," said Edward Allen, her own son, "will go away and be an actor unless you consent at once to move."

But "Mother Allen" still refused to budge. One railroad son's hair grew down his back; and the second son's coat continued buttonless at the top; and the real son, Edward, went away, as he had threatened to do, and became an actor in Ethel Barrymore's company.

Suddenly, in May, 1907, "Mother Allen" at length surrendered. She declared that if only Edward would come home, she would move into a real house.

A few days later, Edward Allen, then in Illinois, received this telegram:

> Come at once. Mother will move into a fine house to-morrow.

Edward was prosperous. Nevertheless, he left the stage and hastened to Seaford, Delaware, to remain there long enough to see his mother installed in her new home.

He arrived at his home town and hurried to the box car. A large number of people gathered around, including every railroad man who had been able to get off duty.

Crape hung from the side of the box car. Carriages stood in line behind a hearse, in which pallbearers were placing a casket.

The next day the son with the long hair went to the barber; the second son got one of his sisters to sew the top button on his coat; and Edward Allen resigned from the theatrical company and stayed in Seaford.

"Mother Allen" had moved to a new and better home in another world.

INTERNATIONAL RAILROAD BOARD.

STEPS have been taken by the United States and Canada toward the creation of a joint international railroad commission for the control and regulation of international freight and passenger rates between the two countries. It is regarded as the most important step taken in many years in furtherance of the cordial relation between these two countries, and is taken also as an indication of the spirit with which the United States and Canada are to work out their question of reciprocity. This is the first formal move ever made in this country toward the regulation of international railroad rates.

The preliminary step taken by the two governments consists in the appointment of Martin A. Knapp, chairman of the United States Interstate Commerce Commission, and J. P. Mabee, chairman of Canada's Railroad Commission, as a committee to consider the advisability of the creation of such a commission. The two chairmen are to meet at an early date, and report back to their governments. There is little doubt in Washington that they will report in favor of the international commission.

The actual creation of the commission will be the result either of the treaty agreement between the two countries, or of concurrent legislation by the countries, or, possibly, both.

If an international commission results, it will be composed partly of Canadians and partly of Americans. The powers possessed by the Railroad Commission of Canada are broader and more comprehensive than those now possessed by the American commission. The Canadian Railroad Commission, it is said, is practically able to fix rates, but the power of the international commission as applied to American roads would have to fall considerably short of this.

Such a movement would develop railroad traffic between Canada and the United States. The traffic over the border, especially in Minnesota and other Northwestern States, has been increasing by bounds in the last few years, and it is the belief that the near future will see a further marked development in this direction.

The Interstate Commerce Commission of the United States and the Canadian Railroad Commission, acting individually, practically control international rates between the two countries. The Interstate Commerce Commission, in the case of a rate over an American road to a point in Canada, compels the railroad to file not only the rate to the point of destination, but the proportion of the rate charged to the border. The commission thus insists upon the rate to the border being just and reasonable, and the Railroad Commission of Canada exercises its power after the road crosses the line.

Under present conditions of individual effort, however, neither the United States commission nor the Canadian commission has been able to compel the maintenance of through, or joint rates, to international points. It is in this connection that railroad experts expect the greatest benefits to flow from a working agreement between the two governments. The through rates to Canadian points, in most instances, now are made up chiefly of the aggregate of local rates, which are said to be higher than through rates would be.

Everybody counts. A careless section hand can wreck a careful engineer.—Facts and Fancies of the Old Man.

WHEN O'DONNELL STOOD PAT.

BY MARION PATTEN LINDSLEY.

A Colossal Game of Bluff, in Which Sheer Nerve and a Stiff Upper Lip Saved the Day.

"WILL I accept it?" said O'Donnell excitedly, putting a pair of his wife's stockings into his suit-case by mistake, and seizing a couple of collars and some handkerchiefs.

"I will. 'Would it suit my convenience to report to Mr. Davis in Chicago on Tuesday afternoon?' 'Would it suit my convenience?' Well, if they wire, just tell them all you saw was the streak I made as I hit the pike for the depot to get there.

"'Would I accept the position at four thousand a year?' Would I? Would I turn somersaults all the way to Chicago to get the raise?"

"Here, William O'Donnell," said his wife, "you go sit down somewhere and get hold of your emotions while I pack this suit-case. What use are you expecting to have for a pair of my hose and two jabots?"

He mopped his brow and paced the room nervously until she finished packing. Then he threw his hat on his head, where it sat jauntily askew, seized the suit-case and started.

"Now, remember, William, not to spend any more money than you can help," called his better half cheerfully from the front door. "It's all we have to see us through this month's bills. It doesn't seem really necessary that you should take eighty dollars with you. It ought not to cost you over twenty at the very most. If Watkins presses for payment, I'll simply have to wire you for money."

"Well, you wire and I'll send it at once."

"A good woman, Maria," thought he, "but a little too close to be real broad-minded. His money went with Irish indifference to saving, and he was always in high feather while it lasted, though often lost in wonder as to what had become of it when it was gone. Sometimes he was disheartened and blue for as long as three or four hours over the depletion of the exchequer.

Then it was that Maria always proved her value as a helpmate, for she brought out loose change from some hidden place, or showed him a balance on her bank-book which covered the deficit and enabled them to worry along until the next salary day.

Maria was slow, but sure and steady. When Bill saw a thing he wanted, he went after it in leaps and bounds and somersaults. Often in his enthusiasm he fell over the desired object and rolled on beyond it, while some calmer and better balanced individual picked it up behind him. Maria, however, always approached the object of her desires in a conventional jog-trot and by an orthodox and well-traveled route. On arriving, she often found that some one, less painstaking as to methods, had reached it by a short cut, and that there was nothing left for her but disappointment.

But both were philosophical, though in ways as widely different as their personal appearance. Bill was short, rotund, and mercurial, with a twinkle of recklessness in the shrewd gray eyes that laughed out at the world engagingly. Maria was angular, tall, melancholy, and had a peculiar set to her chin that frightened children.

On the way to Chicago Bill read a dozen times or more the letter offering him the position with the Overland Pacific. It was a rare streak of luck. He was thrilled with excitement to think that at last he was to meet Davis, the man who had arrived at the heights whither he was feebly striving.

He had always regarded Davis with awe and reverence, and it would be quite a wonderful thing to meet him and give him one or two of the really good ideas he had for the betterment of the road, ideas that had been formulating in his brain for months.

After all, four thousand a year wasn't so much. Davis, no doubt, got treble that amount, possibly more. If he could make them raise it to five thousand Maria could have that house she had wanted to live in so long; there could be a new rug for the parlor, and really the girls were getting at an age where they liked nice furnishings when their young men called. He had a vision of their joy as he came in and carelessly announced:

"Well, girls, how about that new rug for the parlor? Maria, better pick out a fine one to fit the floor of that Seventh Street house while you are about it.

"Nan, you might see about trading in your old piano for a new one.

"Alice, did you say something about wanting art lessons this winter?

"Myra, you may take that trip to Chicago with your chum if you want to."

He beamed with such satisfaction that the wry face of a sour-looking woman across the aisle relaxed into a sympathetic smile, and she offered him her paper to read. His mind wandered from its columns to the things Maria and the girls would have.

Privately, he did not yearn to hear music. As for art, when Alice, with a soulful expression, had once asked him what he thought of the flesh-tint values of a Bouguereau, his sole exclamation had been a shocked, "Gosh!" But he loved his wife and daughters, and liked to have them take an interest in culture. They were warm-hearted, loyal folk, and he was proud of their little accomplishments and successes, and proudest of all that they loved him.

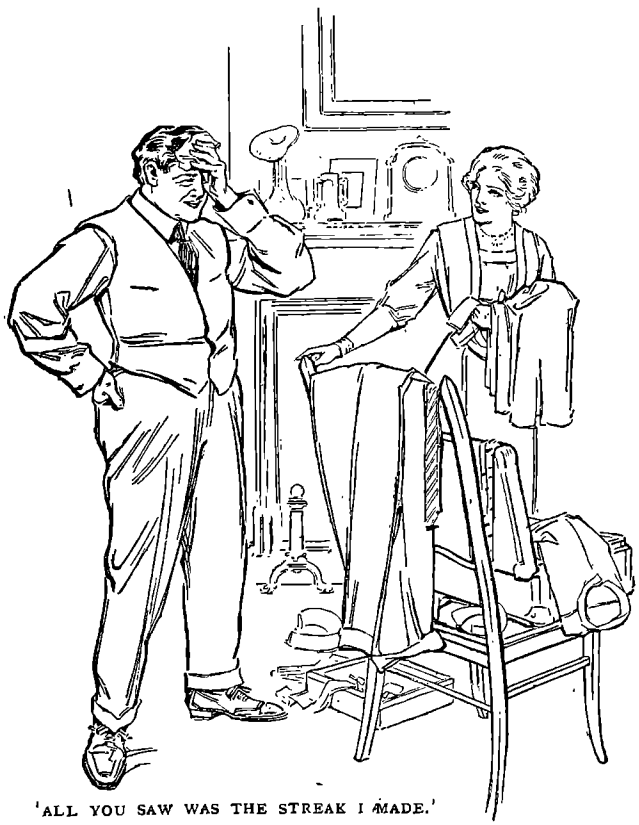
His mind wandered back to Davis. Why was it, he wondered, that Davis should be at the top and he only a tenth way up? A headline in the paper struck his gaze—"The American Game of Bluff."

Suddenly he remembered a friend of Davis's saying to him once, "No wonder he got there, O'Donnell. Why, that man can bluff through on a pair of deuces as if they were four aces, stand pat, and get away with the whole jackpot."

His active imagination gripped a new idea and wrestled with it all the remainder of the trip. He left the train with as happy a smile as though the eighty dollars in his pocket was not all the ready cash he had in the world, and ensconced himself in the bus of the most expensive hotel in the city. On arriving, he walked into the building as if he owned it.

"Give me the best suite of rooms you have," he said to the clerk, in an offhand manner.

"The royal suite is empty, but it is twenty-five dollars a day—"



'ALL YOU SAW WAS THE STREAK I MADE.'

O'Donnell flung down two twenty-dollar bills and a ten.

"Call a bellhop," he said shortly. "Can a man get any service in this hotel, or can't he?"

In an instant the clerk and several servants were buzzing about him. At last he was left alone with a little $3.85 suit-case in the midst of sybaritic splendor. He walked around looking at the pictures and feeling the plush of the furniture. He noticed that the suit-case reposed on a costly inlaid table, snatched it off, and wandered about looking at the details of the apartments. In his admiring

and awestricken amblings he encountered his image in a pier-glass.

"Gosh! What would Maria say?" he inquired of it. The image received the query with a look of solemn wonder, which changed rapidly to nervous anxiety. He fixed it with a disgusted frown, which gradually melted away under the warmth of the twinkle in his eyes.

"Billy O'Donnell," he said chuckling, "if Davis could, you can, too. Anyhow, you're going to stand pat and get a heap of fun out of it. So who cares?"

Seating himself at the mahogany desk, he inscribed a brief note to Mr. Davis, informing him that he, William P. O'Donnell, was at the ——— Hotel; would be too busy to see him that evening; expected to be very much engaged the following morning, but would be pleased to see him at two the following afternoon if he would call.

He perused the note with interest, dispatched it, and set about killing time until the appointed hour, cheery, but with many grave misgivings. Twice he had to restrain an almost unconquerable impulse to go look Davis up in a meek and humble spirit befitting the situation, and express his abject willingness to accept the proffered position.

At a quarter before two the next afternoon, he ordered a box of the finest cigars the hotel afforded. Stuffing half a dozen of them into his pocket, he placed the box conspicuously on the center table. The next fifteen minutes went like hours. As the clock on the mantel pointed at two he began smoking to quiet his nerves. At three minutes past two Mr. Davis's card was brought to him by a gloomy-faced bellboy.

"Very good," he said, putting a dollar in the boy's hand. "Very good. Just tell the gentleman I am busily engaged on some highly important matters, and will be at leisure in ten minutes. Ask him to wait, and bring him up in ten minutes or so. There's another dollar where that came from if you don't let him get away."

"I'm on," said the boy, with a wink.

O'Donnell seated himself in front of the clock.

"Well, will that ten minutes ever pass?" he asked himself anxiously. "What if he should go?" He started for the bell, but restrained himself and paced the room, back and forth, back and forth. Four minutes, five minutes, six minutes, seven—

The strain was too much, and as the eighth minute passed, he seized the phone and asked to have his caller brought up to him.

While pacing back and forth waiting, he saw two prosperous looking men pass his open door from a room just beyond. They met Davis and the bellboy just as they turned the corner into the corridor. One of them he recognized as the president of the North Central Railroad, whom he knew by sight. He noticed that Davis bowed and turned to stare after them with a peculiar expression on his face, and the thought flashed through his mind that they would naturally be supposed to have come from his rooms.

He met Davis with outstretched hand, and they sized each other up with quick, shrewd glances. Strange to say, he was perfectly cool and indifferent now that the crisis was upon him. Davis was puzzled and interested.

"Sorry to have kept you waiting," explained O'Donnell, with magnetic winsomeness, "but it was unavoidable. Have a cigar?"

Davis's eyebrows went up a trifle as he noted the name on the box and took in the expensive overelegance of the suite. He settled himself comfortably in an easychair facing O'Donnell, who at once plunged into the main subject between them.

"Now, Mr. Davis, about your offer—the assistant attorneyship, wasn't it? I fear you and I will not be able to agree. You spoke in your note of a salary of four thousand a year."

Davis's gaze went around the apartments and back to the cigar box. He smoked a much cheaper brand himself.

"From what we heard of you we thought you would about fit the position and that the position would about fit you."

O'Donnell smiled enigmatically. "I have a family to support," he said, and laughed good-naturedly.

Davis blew some rings of smoke ceilingward before he answered. His mind was busily trying to readjust itself to the unexpected discovery that O'Donnell was a wealthier and a higher grade man than he had thought to find him. The rooms must cost twenty or thirty a day, and evidently he smoked the expensive cigars before them commonly, as a number were gone from the box. He looked like the sort of a man who would regard such luxuries merely as an incident. He assuredly was no sybarite. He had every appearance of being a sharp, reliable, forceful business man, with horse sense. He had the reputation of being thoroughly posted on railroad law, and of having almost a genius for persuasion.

"I heard you had some ideas about the joint freight rates on the Overland," suggested Davis tentatively.

"Yes. It is a pet way of mine to utilize

my spare time in studying over the railroad needs and interests. Your road is losing a good many dollars every month on that joint freight arrangement. I have worked out a classification that will save you a lot of money."

"Yes?"

"Yes."

The two men eyed each other in silence a moment, the rings of smoke curling up and vanishing, one by one.

"What is your idea?"

"It is one which I should put into operation at once if I were given the authority to do so."

"I see. Well, how does five thousand a year strike you, O'Donnell?" I am not authorized to offer you more than the four, but frankly I think you are the man we want. There have been a number of changes lately in connection with our road. There would be chances for promotion for you, if you make good, as I have no doubt you will. Our present attorney might resign. In fact, that may be more imminent than is generally supposed."

"If that is your idea, Mr. Davis, I fear our interview might just as well terminate right here—that is, all but the social part of it. I have various interests, and as you may have noticed, I am a busy man, with a number of irons in the fire lately. Candidly, I like the Overland the best of all the roads, and would like to work to advance its interests and protect them. Several inside facts have enabled me to study out plans for increasing its revenues materially. They are plans which could, perhaps, be used by the North Central or some other road equally well."

"THE ROYAL SUITE IS EMPTY, BUT IT IS TWENTY DOLLARS A DAY."

Davis eyed him a moment, the fine network of wrinkles about his eyes meeting the deep lines at the corners of his thin-lipped mouth. O'Donnell noticed that while he was tall, well-built, and prosperous looking, he had the worn, jaded appearance of a man who had lived much on the edge of his nerves.

"What would you say to a salary of five thousand?"

"I should laugh at it and dismiss it from my mind," replied O'Donnell airily. "Have another cigar, and put some of them in your pocket if you like them. This box seems rather better than usual. They are my favorite brand."

"About what," asked Davis warily,

"I COULD NOT THINK OF LESS THAN TEN THOUSAND A YEAR."

"about what would be your idea of an amount that would make it worth while?"

"Well, I could not think of less than ten thousand a year," answered the mercurial Billy, carried away with himself.

"Um-m. That is all our attorney is getting." Davis's inward thoughts were not perceptible on his well-controlled countenance.

"I could materially increase the revenues of the road."

Davis rose to his feet and stood in thoughtful silence a moment or two, and then said:

"Well, Mr. O'Donnell, I am sorry we cannot agree in this matter. If you change your mind let me know during the evening."

"It is not likely I shall change, Mr. Davis. Your call has been very enjoyable, even if we do not agree on all points. The interests of your road are nearer my heart than those of any other, and if you find you can meet my terms it would be a delight to serve you. I will not make other arrangements—not to-day, at least."

Davis went to the window, stood a moment looking out, and came back with outstretched hand.

"Frankly, I am sorry to lose you, O'Donnell. You are the man for us, I am sure. We thought this all out carefully, and agreed not to exceed the amount mentioned."

"Oh, well," said O'Donnell graciously, "life is full of these little unadjustable things. It has been a treat to meet you, Mr. Davis, and if I can serve you personally at any time it will be a pleasure."

They shook hands. O'Donnell permitted a little regret to creep into his cool, smiling expression—gracious regret at his inability to accommodate. In Davis's eyes shone a gleam of strong admiration.

When the door closed after Davis, O'Donnell started to call him back, and had to catch hold of the center-table with both hands to hold himself. The quick impulse conquered, he sank onto a sofa and kicked all the gilt off one of its legs.

"You worse than fool," he groaned. "With your airy refusal of the biggest salary you've ever had offered to you! You'd best use a little sense and go after him and tell him you'll take what he chooses to give."

He had a flash of intuition.

"No, you can't do even that now. If you climb down, he'll despise you and not want you at any price."

"Oh, gosh, what will Maria say? I won't tell Maria. There are some things a woman never can understand, anyhow. It isn't necessary to tell 'em everything. Maria knows I'm a fool, without a ground plan, front elevation to that effect being sketched out and presented to her by me."

He walked to the window and stood looking out for ten minutes, then wandered back to the sofa again, and seated himself in a little, hunched-up bunch in one corner of it. His thoughts were neither lucid nor consolatory.

After a quarter of an hour, he went to the table and smoked furiously for thirty minutes. By that time his nerves were so unstrung that he could sit nowhere, and he began pacing

the floor. Suddenly he encountered in the pier-glass a queer, round little figure of a man with a countenance of deepest wo. He stared at his image in silence, and shook his fist at it. Then he burst into invective.

"You would, would you? You addlepated inbecile! You took a flier, didn't you, just because you hadn't brains enough to weight you down? If you will go up in an air-ship of idiocy you must expect to take a hard fall and get your little fool vanity bruised some."

He walked the length of the room and came back to make faces at the reflection in the mirror. "There are just three classes of fools, my son," he expounded gravely.

"There are congenital fools, accidental fools, and just plain damfools. You, my bright boy, have proved your indisputable right to be the leader of the third class."

He rumpled up his gray hair and smiled with deep pity at the wild-looking figure in the glass.

"No wonder," he sighed, "no wonder! You are suffering with an acute attack of megalocephalitus complicated with ingrowing nerve, and there was no surgeon near to operate and reduce the swelling in your head in time to save you. No wonder you're gone."

"You're a dead one, my boy. You're commercially and financially and particularly dead, with nobody comin' to the funeral. Nobody, that is, but Maria."

This last thought added to the gravity of his expression in a marked degree. He resumed his restless pacing back and forth.

"You play a pair of deuces as if they were four aces! Huh! You've played the deuce all right. You've raised for yourself what William Allen White says they raise in Kansas. You'll just have to munch your crop, my long-eared, silky-haired friend, whether you like it or not.

"William Parnell O'Donnell, you're a sixty-horse-power, silver-plated, double-riveted, mile-a-minute honker, that's what you are. The geese and donkeys just run to die under your tires because they recognize their brother, they do.

"You've thrown away not only your own chances, but Maria's new home, and Alice's art lessons, and Myra's trip, and Nan's piano—that's what you've done. All those innocent women have to suffer because of your asininity. Aren't you proud of yourself? Aren't you?

"It's all because this gilt and plush and paintings and folderol went to the weakest spot in you and addled your brains, though it is only by courtesy one would call what's in your head brains."

He sat down and tried to compose his thoughts and study the way out of the situation, but an hour's deep meditation failed to bring forth any inspiration. It all came back to the same thing. He could go to Davis and eat humble pie and be coldly refused, or at best be taken on at the original offer of four thousand, though for this last he had no hope, feeling that his apparent prosperity and indifference were what had won and held Davis.

Two hours later he was still lost in painful thought, when a sharp rap at the door aroused him. He had just opened his mouth to call "Come!" when the door opened and a mischievous face peeped in; it was lighted by bright, brown eyes and surmounted by an A. D. T. cap.

Ye gods! The telegram from Maria! Watkins had demanded that his bill be paid and had refused to wait. Truly, misfortunes were thick upon him. He just turned and walked to the window and stood looking out, sad and

"HAH, WOULDST DO MUH HARM."

disheartened, for well he knew that he had not now the wherewithal to meet Watkins's demand. In a moment it penetrated to his consciousness that the room was very silent. He turned in time to see the boy stuffing cigars out of the box into his pocket. He swooped down on him.

"Here, you!" he yelled wrathfully, "that will be about all for you, you young limb!" Grabbing him firmly by the collar, he literally shook him loose from the cigars. But if he looked for repentance or terror he was doomed to surprise.

One look at O'Donnell's jolly face made the boy feel that he was not going to be punished. "Unhand muh!" he cried, impudently, his head on one side. "Hah, wouldst do muh harm? Muh, the sole support of a widowed mother and her orfling cheild?"

"Your widowed mother ought to take her orfle child across her knee and spank him," said O'Donnell disgustedly. "The idea of a kid like you smoking! It's bad enough for a man my age. Don't you know what they do with boys that snoop around taking other folks's belongings that way? The police get 'em. I've a mind to see that they get you."

"Oh, I say now, mister, you wouldn't be so mean to a poor little feller what has to hustle fer a livin', would you?" begged the boy, now thoroughly scared. "I never took nothin' before, s'ellup me. When I came into this room and saw all this gorgeousity and splendiferousness it kind of went to my head, it did."

O'Donnell's face softened. The "gorgeousity and splendiferousness" had gone to his head, too. Why should he be hard on a fellow weakling?

"When I sees them thirty-dollar-a-box cigars—"

The rest of the sentence was lost on O'Donnell. Merciful goodness! Thirty dollars a box! They were not yet paid for; he had not thought to ask the price, and he hadn't thirty dollars left. He began some lightning calculations. His watch would bring the amount, perhaps, that would be needed for a graceful exit from the hostelry.

"But Watkins! This thought brought the unwelcome message from Maria to his mind. He took it up from the table, but deferred the misery of reading it to listen to the boy's remarks, which were still fluent.

"An' I don't smoke 'em meself, not muh! I did onct, an' I didn't eat fer a week so's things would stay down where they was put. I gets 'em when I can, an' I gives 'em to the manager. It's just me little graft.

"When I turns me flashlights onto all this gold and them thirty-a-box cigars (O'Donnell winced painfully), I says to meself, 'Here's one of them multimillionaires that throws around five-dollar bills fer tips,' an' the thought of the five dollars you was goin' to give me, and all the rest of it, sort of went to me head, it did. That message is fer you, mister, an' I'm to wait fer the answer."

O'Donnell opened the missive slowly, read it, straightened up with a wondering grin, read it again, and gave a war-whoop of pure joy. He went to the window and stood looking out. The perspiration had formed in beads on his forehead, though the room was quite cool. He wiped his brow several times, during the evolution of an answer. Seating himself at the desk he dashed off a note and handed it to the boy.

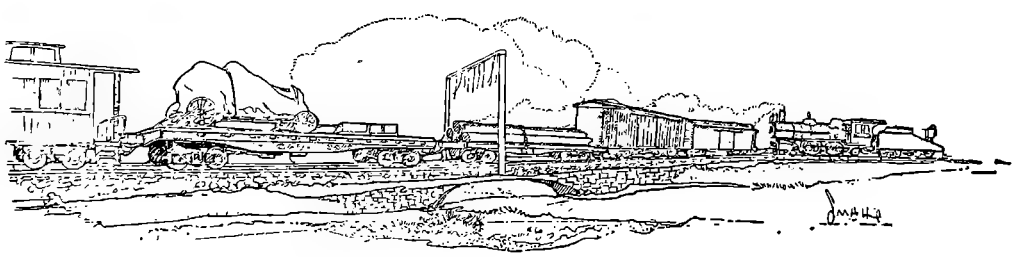
"Wait. I want to send a telegram, too." He thought deeply, trying to compose a message that would meet Maria's approval, and he succeeded admirably, breaking out only on the last word. It read as follows:

MRS. WILLIAM P. O'DONNELL, ATCHISON, KANSAS:

Appointed attorney Overland Pacific. Salary ten thousand a year. Whoopee.

He mopped his brow again as he watched the door close behind the boy, to whom he had recklessly given a five-dollar bill.

"Well," he murmured limply, with another flash of intuition, "if Davis's bluffs carried him through such hours of particular Hades as mine has me, I wonder if he thinks the game's worth the candle?"



With the Boys of the Northwest.

BY M. G. ROCHE.

WHEN James J. Hill began railroading in the Great Northwest, he stirred things up mightily. It is the nature of this big, progressive man to "keep things on the move," and many are the tales that are told about him. Although he figures in some that Mr. Roche has set down here, there are other live ones of Western railroading, some dating back to those exciting days when the Great Northern and the Northern Pacific first pushed their steel noses into the Puget Sound country.

Still in the Game—Thought He Was Dreaming—The Irish Special—Hill Had Resigned—The Death of "Checks," and Other Good Ones.

DURING the Villard régime on the Northern Pacific, T. F. Oakes was his right-hand man. He succeeded Villard to the presidency, and had direct charge of the operation of the road. Villard was a financier, and Oakes an operating man. Under the latter's management the Northern Pacific's development was something wonderful.

What was once a stretch of barren country, reaching from St. Paul on the east to Portland on the west, became a series of hamlets, villages, towns, and cities, many of the last named growing to metropolitan proportions and peopled by the very best bone and sinew, not only of our own country but of those who have come from abroad.

Back in the early eighties, when Oakes and Hill headed the two great northern transcontinental lines, the competition was more than keen. Each move of the other was watched with hawklike eyes, and every effort made by the one to circumvent the other.

Agreements would be signed one day, only to be broken the next. This grew to such a pass that ofttimes the ink of a signed agreement would not be dry before it was broken.

It is said that the agreements between the traffic and operating officials were of such little weight that finally Mr. Hill and Mr. Oakes themselves came together for the purpose of settling some knotty problem. An agreement was soon reached and duly signed. Lo and behold! the very next day the Northern Pacific president discovered his agreement was no more binding than one made by the general freight-agent.

Forthwith, according to the story, Oakes sought Hill in his private office, and a stormy interview was the result. As they were about to separate, Mr. Oakes said to Mr. Hill, his steel-gray eyes fairly emitting sparks of fire:

"Mr. Hill, I never knew before, sir, that you were such a liar."

"Mr. Oakes," replied the ever-ready J. J., "I never knew before, sir, that you were such a fool as to believe me."

And then they separated.

Since those days Mr. Oakes has retired to private life, having amassed a fortune in Wall Street after quitting railroad work. Mr. Hill, however, continues in the game, and to-day his position as a railroad ruler needs no emphasizing.

THOUGHT HE WAS DREAMING.

THERE is a good story told on Joe McCabe, now a prominent railroad contractor in the East. McCabe was for years division superintendent of the Northern Pa-

cific, and afterward vice-president and general manager of the Washington and Columbia River road, now a part and parcel of the Northern Pacific. When general manager of the Washington road, McCabe traveled in his private car.

Side-tracked one day, when inspecting some construction work, McCabe stood on the rear platform, smoking a two-bit cigar, as was his custom after a hearty dinner.

Along came a tramp, a Weary Willie, a Dusty Rhoads, a veritable hobo. He sized up McCabe and his car, and then said:

"W'at's de chance, guv, of gettin' sumtin' to eat?"

After a moment's thought, Joe said, "Good! Come in!" and, turning to his porter, said:

"Charley, give this gentleman something to eat—give him just what you gave me."

Accordingly, the soup was brought in, then the fish *entrée* and some salad, followed by the roast and all things else which go to make up the dinner of a hearty eater; for such was the genial general manager.

When his grace of the road had eaten his fill, and drunk until he could drink no more, he stepped onto the platform, picking his teeth with a quill toothpick. As he cleared the doorway, the irrepressible McCabe took a two-bit cigar from his pocket, and, handing it to his guest, said:

"Have, a smoke, sir?"

As the tramp lighted it and turned away, Joe said:

"Take another, and smoke it later."

Without as much as "Thank you," the tramp stepped from the platform to the ground. Walking half the length of the car, he sat on an embankment. He puffed at that cigar until it grew so short that he had to stick a pin in it to keep from burning his fingers, so anxious was he not to lose a particle of the fragrant weed.

When the pin grew so hot that he could hold it no longer, he lighted the other, and, with his elbows on his knees and his chin in his hands, he neither looked to right nor left, but slowly puffed, puffed, puffed.

Once again he resorted to the pin. In time that again grew too warm, and what was left of the cigar and the pin dropped to the ground between his poorly covered feet.

Without as much as winking an eyelash, he sat there with his face still in his hands and his elbows still on his knees. He looked to neither right nor left. Finally McCabe said:

"Are you sick?"

Without looking up or shifting his position in the least, the tramp said:

"I'll bet five hun'red to a doughnut dat I wake up in five minutes."

THE IRISH SPECIAL.

SPEAKING of general managers, there is one in Portland who is rapidly drawing to himself the attention of the railroad world. He is J. P. O'Brien, and, like many another railway manager, has risen from the ranks, and is in every sense of the word a self-made man.

As every one knows, the private cars of railway officials are known by a name or number. The car of the general manager of the Harriman lines is numbered "02," and is known as such.

Several years ago, when Drake O'Reilly was assistant general freight-agent of the Oregon Railroad and Navigation, he went out with Mr. O'Brien to attend an important meeting at LaGrande, in eastern Oregon. The car was, of course, side-tracked during their stay there, and, as is the custom, was inspected. As the inspector was overhauling the trucks and brakes and all such things beneath the car, a car-whacker happened by.

"Phwat have yez there?" said he.

"The Irish Special," was the reply. "The three O's—the 02, O'Brien, and O'Reilly!"

HILL HAD RESIGNED.

IT is frequently said that railroad men handle the truth with economy, and that it is as natural for them to twist a meaning as it is for them to eat. Be that as it may, there is one man I know—and he is one of the most prominent railroad men in the country—who can be as careful in expenditure of that commodity, when he believes the occasion requires it, as any one I have ever met.

Before the completion of the Canadian Pacific along the north shore of Lake Superior, all its business moved via St. Paul and St. Vincent, using the tracks of what was then the St. Paul, Minneapolis and Manitoba. At the time, J. J. Hill was president of the road, and also a director of C. P. R. I was, at that time, railroad editor of the St. Paul *Pioneer Press*.

One evening we had an Associated Press telegram, saying Mr. Hill had resigned as a director of the Canadian Pacific. Of course, as he lived in St. Paul, there had to be some local corroboration.

Accordingly, I called at Mr. Hill's resi-

dence. I found him with Conrad Gotzian, the shoe man. They were great cronies. As I entered the room, Mr. Hill said:

"What can I do for you, Roche?"

"I understand, Mr. Hill," was my reply, "that you resigned from the C. P. directory."

"Nothing in it," said the most prominent railroad man in those parts then, and to-day one of the most prominent in the country.

"But, Mr. Hill—"

"I tell you, Roche, there is nothing in it. I have not only not resigned, but, furthermore, I have no intention of resigning."

Finally he gave me the opportunity of telling him I had an Associated Press despatch which said he had resigned.

"Let me see it," said he. He read it carefully, and, handing it back to me, said, with a smile childlike and bland: "Well, it is true! I have resigned!"

AN EDUCATED DOG.

POOR old "Checks" is dead. Checks was a dog of the Dandie Dinmont breed, and a more faithful friend never drew the breath of life. Checks belonged to Jim Wright, of the B. and O. T. Company. He was more than a dog, and knew more than many gifted with speech.

Checks was a wonder. He could do everything but talk. Jim was a fool to continue checking baggage when he had such an asset as Checks. To such a man as P. T. Barnum Checks would have been a mint. He could do any sum in arithmetic—addition, subtraction, or multiplication. He could tell the time of day, your age, pick out spurious coin from that coined at one of the United States mints, and at cards he was a corker. Jim was ready at all times to wager that Checks would win three games of casino out of every five he played, no matter who might play the opposite hand.

How did he do it?

I don't know, nor did any one else, unless it was Jim, and he would never tell.

Many a time have I seen Jim put a number of pieces of fractional currency on the floor, and then say:

"Checks, suppose I gave you a half-dollar and told you to go out and purchase two and a half pounds of steak at ten cents the pound, how much change would you bring back to me?"

Without a moment's hesitation Checks would pick up the twenty-five-cent piece and lay it at his feet.

His sums in arithmetic were done by means of playing-cards, which had the figures 1 to 0 pasted on the face. These would be laid on the floor in any old way, and the answers to the problems propounded to him he would indicate by picking up the correct cards.

In the same way he would tell the time. Many a time have I shown him my watch, and to the minute he would tell the time the hands indicated. The first time I saw him do this trick I was going out on the O. R. and N. eight o'clock train. There were a number of other traveling men with me. I had been telling them of Checks and his wonderful powers. They laughed at me. Just at that moment, as luck would have it, Jim came into the car with Checks, for the two were inseparable companions and always traveled together.

"Just in time, Jim," I said; "I have been telling these fellows about Checks, but they won't believe what I say."

Jim was naturally proud of Checks's wonderful attainments, and always ready to show off his faithful companion.

"Show him your watch," said Jim, "and see if he can tell you the time."

We had just cleared the steel bridge over the Willamette. It was eight-ten by the watch. Jim did not say another word nor make a move, so far as we could see. It was I who did the talking.

Without a moment's hesitation, Checks picked up the 8, then the 1, and finally the 0. To say that my friends were astounded is to put it mildly, indeed.

I then asked one of the party the date of his birth, and I'll be hanged if Checks did not tell him his age to the very day—so many years, so many months, and so many days.

Jim carried with him another set of cards. Instead of numbers, the faces of them were covered with the trade-marks of the various roads represented in Portland. Checks could tell you what road any town in the Pacific Northwest was located on.

If any one asked the most popular way to go to Chicago, Checks would invariably pick up the "Rock Island Route" card. In those days Jim De Bevoise was the passenger representative of that road, and he and Wright were great friends. This probably accounts for the dog's partiality.

Poor old Checks's death was very sad. He did not die a natural death. He committed suicide. Of this there is not the slightest doubt, for those who witnessed his death say he deliberately went to it.

It was during the Lewis and Clark Fair. Travel to the exposition city was so heavy that Wright was taken off the road and stationed at the Union Depot. His time was so taken up by business, and there was always such a rush at the depot, that Jim would leave Checks at home. Such a life soon grew too monotonous for the little fellow, and he would a dozen times a day make his way to the terminal station. As often as he would come Jim would send him home.

It was pitiful to see the little fellow with his tail between his legs—you could not see his eyes because of the long hair which covered his face—turn and do his master's bidding. His heart was broken, for never before did he receive such treatment.

One day he evidently determined to end it all. A train was due, and the pavement in front of the depot was lined with hotel buses. Checks stood on the curbstone and watched the weary travelers, but none more weary than he, as they filled the hotel caravans.

The largest and heaviest was that of the Hotel Portland. As it moved away a wild yelp was heard, and the next instant the rear wheel of the heavy bus crushed out the life of poor little Checks.

That it was a deliberate suicide is vouched for by several witnesses. They declared that Checks deliberately waited until the bus moved, and then threw himself beneath the wheel.

Jim heard the cry away off in the baggage-room. He dropped all work and rushed out in time to pick up the mangled remains of the most faithful friend he had ever known.

If there is a heaven to which good dogs go, and regrets will take one there, Checks is now certainly numbered among the canine blessed.

COULDN'T SEE THE POINT.

COLONEL FRED H. TRISTRAM, assistant general passenger agent of the Wabash, and one of the best-known passenger men in the country, had occasion to remark upon the density of our cousins from across the water.

At the time he was passing through Salt Lake. In the smoking compartment of the Pullman car were three others—two traveling men and an English tourist. One traveling man was telling the other all about the Mormons—how they had made their way into the wilderness to found a Zion and be free from the persecutions of the Gentiles; how they had picked out Salt Lake because of its having some physical resemblance to the Holy Land; how it had taken forty years to build the temple, and how each stone was numbered so that the edifice could be replaced in identically the same shape elsewhere should the Gentiles drive them farther West; how they had carted by ox-team all material and furniture not indigenous to the soil across the desert. In fact, he told him everything pertaining to Mormonism, even unto the tenets of the faith itself.

The fellow was an interesting talker and exceedingly well posted. His talk was new matter to the Englishman, and he was, of course, much interested.

Naturally, in the course of the narrative the name of Brigham Young was mentioned. Said the speaker to his friend:

"That, you know, was not the man's real name. It was simply a nickname."

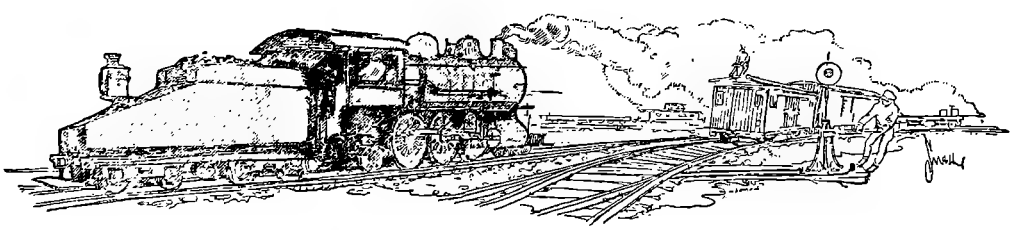
"How in the world did they ever happen on such a name?"

"When the temple was nearing completion the apostles of the church, the ruling power, sent elders broadcast throughout the land to convert the world. Their last injunctions to these elders were: 'Now, we want converts, but we want women mostly. Bring all you can, and bring 'em young.' That's how the first president of the great Mormon church came by the name, which has been handed down to posterity."

The two drummers and Tristram laughed heartily, but the Englishman did not smile.

Nearly an hour later, just as they were pulling into the Ogden yards, the Englishman spoke for the first time. Said he:

"I cawn't see the point of that Mormon story. The man's name, you know, was Brig-ham Young, and not Bring-em Young."



A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

What a Girl Did to Save the Life of the Man She Loved.

CHAPTER XII.

Pierre Is Left Behind.

IT took Pierre and Anne Marie a whole day to make Devil's Portage. The snow seemed deeper and interfered with walking. They would take a few steps over the crust and suddenly break through, sometimes knee-deep; and they longed for snow-shoes.

Every mile made in the direction of Lake St. John meant at least twice the actual distance traveled, owing to the obstacles they had to surmount. Up hill and down, across swamps, over rocks and windfalls through *brulés,* sometimes cutting a passage with the ax, turning to escape heavy drifts, and sometimes falling into treacherous pits in the burned land that was covered with a maze of fallen tree-trunks—there were places where an advance of a hundred yards was equal to the toil of miles over better going.

Twice the dog disappeared, deceived by the thin coating of shimmering snow that covered the spaces between the fallen trees, and it was a task to rescue him, as he was half suffocated by the powdery snow that covered him.

"He's not an Indian dog yet," remarked Anne Marie.

"No, neither is his master equal to a savage," replied Pierre.

If he could have seen her look at him he would have known that to her he was more than a savage or a white man—more than any human being she had ever known, and that in her eyes he was perfect.

When they came out upon the river again, they were just above the *Chute au Diable.*

"From here it is about thirty-eight miles to the mouth of the river; a good deal less to the first falls," said the girl.

Pierre felt cheered up. After all, it was but a short distance. With good snow-shoes and a hard frozen river, it would have been but a small matter to have accomplished it in a day. An idea came to him.

"Look here, Anne Marie," he said as they sat down upon one of the rocks near the river, "we can't make regular snow-shoes, but we might be able to manage a couple of pairs of skis."

"What is that," she asked.

"A kind of snow-shoe used by people on the other side of the great seas," he replied.

"But we have nothing; we have even left the piece of caribou hide behind, though that would have been no good."

"They are made of a single piece of wood," he answered.

If Pierre had asserted his ability to make a railway engine, she would have believed him. She gathered some wood and began to make tea. Fortunately there was plenty left, although the milk and sugar had been gone several days.

After drinking some of the tea, Pierre decided to try spruce for his ski. He cut down a young tree and split it into long slabs. With the knife they were shaped as well as possible, while Anne Marie looked on curiously in silence. Like all simple people, she could not understand a departure from a long accepted type, or make out in what manner these things were to be used.

Pierre had a good deal of trouble in curving his ski in front. He had to make his slabs thick and shave them forward until he had them rounded to some extent. He worked a good part of the next morning before he had two pairs made and the thongs fastened. On trying them, he found these

had been placed too far back, and had to change them.

Anne Marie watched him in admiration as he ran over the crusted snow with them.

"They're not much good in the thick woods," he said, when he returned, "but they'll do splendidly on ice."

The girl tried them on also and was pleased.

"It is good," she declared, "they will not last long, the wood should be harder, but we can easily make more."

"We will travel far to-morrow, Anne Marie," he declared, quite elated.

"Yes, a long way," she answered smiling.

But her smile vanished fast. If the ice would bear them most of the way, their trip would last but two or three days more. And then? Oh, she could not bear to think of it! It was cruel!

She had known happiness. A new and wonderful element had come into her life. She was toil-worn and hungry, but did not feel the aching muscles and the bruised feet. All that she knew was that she could have gone on, like this, to the end of life by his side. And soon he would be gone, and the world would be dreary and empty.

For the first time her stoicism left her, and tears quietly rolled down her cheeks.

Pierre saw them.

"What's the matter, Ou-memeou," he asked gently.

"I don't know," she answered, endeavoring to smile through her tears.

"I know!" exclaimed Pierre; "you're just worn out. That's the trouble. You've had a harder time of it than I thought, and are played out. Sit down, we can stay here to-morrow and rest, if you like. I guess the grub will hold out."

They sat on a flat rock, and Pierre placed one arm upon her shoulders, as if she had been but a tired chum. Gradually she began to rest some of her weight on his great chest. The murmur of the great falls became heavenly music, and the snow, far in the distance, was converted into a path of light, leading to a *Manito-nats*—a paradise, a place of glory, bereft of cold and hunger, filled with all good things, wherein she would forever sit by this man, with his arm about her.

And Pierre, seeking to dry her tears, as if she had been a weary and sorrowing child, stroked her hands and petted her. Then it was that he realized she had become very dear to him, and that it would be sad to leave her, and that the toil of their hard trial would be nothing to the tearing asunder of some fibers of his heart that seemed to cling to her.

"Ou-memeou, *ma tourterelle,* it will be hard to leave thee," he said.

And as her head lay in the hollow of his shoulder, his face went down nearly to hers, but suddenly he straightened up and stared fixedly in the distance.

"I love the poor little thing," he said to himself. "But it will not do. If I kissed her once, I would never leave."

In the morning an early start was made, but they could not use their skis in going over the long portage of the Devil's Falls. The going was too rough and hilly. Yet they rejoiced in the idea that, when they came to the river again, they would be able to travel on the ice.

How glorious it would be to get out of these tangled woods. They would have to be very careful and watch out for air-holes and thin places over rapid water, but would make several miles an hour, only taking to the shore when compelled to by the falls and rapids.

With their skis strapped to their backs, they toiled over the long portage. The trees were blazed and it was easy to follow, as compared with so many terrible places they had already passed.

The portage begun to go down hill. In one place it was covered constantly with ice by the spray from the falls. Pierre slipped once, and the girl, who was then behind him, called out to him to take care. He half turned to reassure her, but again his foot slipped and like a flash he was over the edge of the portage, clutching wildly at branches and snow-covered rocks.

The girl threw herself flat upon the path, and, advancing her head and shoulders over the precipitous edge, looked down. He was there, lying upon some snow that covered a flat rock, jutting over the torrent. He was more than thirty feet below her, and made no answer when she called.

She never could have explained how she got down beside him. Clinging to roots and snow-laden branches, resting her feet upon projecting bits of rock, she descended to where he had fallen and flung herself upon him, chafing his hands and imploring him to speak.

She decided that he must be dead, and the light went out of her world. She sat down by him. She never could carry him up the path again, and it was the end of

her life as well as his. She would not be able to bury him. He would stay there, and she would watch him, and the hunger would come, and the cold would make her sleepy, and she would not fight against it, but allow the *mati-manitous* (the evil spirits) which had prevailed against the *tishe-manitous* (the good spirits) to have their way, for she cared no longer.

This was a separation, but not the one she had feared; and, dully, she thought that perhaps it was just as well.

They had been beaten—trapped, like the wild creatures the men brought back — and it was a natural ending. Like them she would await the coming of the Evil One who had set the snare.

Paddy, left above in the path, howled dolefully, for he knew that everything was wrong. His voice touched something in the girl's heart, some fiber long attuned and never before made to vibrate. She broke into a mournful cry and threw herself upon the prostrate form. She kissed the beloved face wildly, again and again, and held it in her hands, as if the great Windego of the Falls had been ready to snatch Pierre from her arms and disappear with him forever.

She noticed a movement of his chest. He opened his eyes and looked about him, not realizing what had happened. Then he saw the girl bending over him, and noticed her tears.

He took several long breaths, sought for her hand and kept it within his, as if finding comfort in it. Finally he said:

"That came near being the end, Anne Marie."

She nodded, and looked about her. A few feet farther on, there would have been nothing to prevent his falling in the grinding turmoil of the wild waters.

As she sat there in silence, she was once more the shy, taciturn daughter of Indians. Her face was inscrutable, the love light gone out of her eyes, her lips no longer quivering. Yet within her there was a heart beating wildly with joy, and she realized that she had been in Hades and had come out.

"It was a knockout," he said. "I was dead to the world. Let's take an account of stock and see what's broken. It's either my head or my foot—or both."

He felt his head, upon which a large lump was rising.

"A good thing it's a hard one, and that thick blanket cap helped a lot. I must try to stand up. Hallo, what's the matter with my foot?"

He was trying to rise, but this gave him such terrific pain that he nearly fainted again, and he collapsed, discouraged.

"I can't stand on it. It's surely broken, or badly sprained, and there's no more walking for me. I'll have to send for an ambulance," he said.

His own incongruous thought revived his spirits. He got up on his hands and knees.

"We must get out of this. I'll manage to crawl, somehow," he said. "Just see if there is any way of getting back to the path."

Again she looked. They were on a flat rock, and a little farther on a great log, cast there by the spring freshets, bridged over a space that separated them from other rocks, above which protruded some scraggy trees that had grown in the earth, washed into crevices. She got astride the log, pushing the snow away with her hands, and crossed over. From rock to rock she reached the place where the trees grew. Just above them there was a steep incline that reached up to the path. By pulling oneself up by their slender trunks, one could reach the portage, but it was a hard job.

She returned and explained the situation. Still on his hands and knees he followed her, got across the log, and, with the girl's help, managed to get over the rocks.

By the strength of his arm he managed to pull himself up the incline to where the trees grew, and finally reached the path and laid down, exhausted and dizzy with pain.

It had taken him over an hour, and at every step he had found the girl's shoulder ready for him to lean on. Twice she actually lifted him.

Anne Marie cleared a place of snow and he lay down. All that the girl could think of then was the universal solace of her people—a cup of hot tea. She made it, strong and black, and he was comforted. A few yards away she found a place where the tent could be pitched. She attended to everything, deftly as usual, and Pierre crawled under his blankets, shivering, while she cooked their supper.

The young man could eat a little, and Paddy, as usual, was ravenous; but Anne Marie, looking over the provisions that were left, drank much tea and ate sparingly. Before entering the tent for the night, she knelt devoutly and prayed earnestly by the flickering light of the camp-fire, for she realized that they were in sore straits.

When she came in, she suggested that Pierre should take off his boot.

"We'll have to cut it," he answered. "I could never stand to have it pulled of. Perhaps we might just unlace it. It might ease it."

She unlaced the boot for him, but it did not relieve the pain. He feared to take it off, knowing he would not be able to put it on again. He decided that if it was only a bad sprain the boot might prevent the swelling and support the ankle to some extent, and left it on.

"We've got to go on, Anne Marie," he asserted doggedly the next morning. "I had as soon bear that pain as to sit in this tent while the food goes and the cold gets worse. I'm willing to stay here if you want to go on without me, and you can send me help when you get to the first falls.

"Very well," she said; "I'll leave you the tent and the food, and will be back as soon as I can."

"Not a bit! You must take the tent. You can build me a little lean-to. Then you must take three of the blankets and half the grub that's left."

She would not hear of taking the tent, and he acknowledged that she was right when she said its weight would make some difference in her speed. Then she showed him that she could get food as soon as she reached the first falls, while he would have to remain until she returned with more.

At this time there was left but about three pounds of meat, less than a pound of bacon, enough flour for four or five flapjacks, and about a cupful of beans. There was still plenty of tea and tobacco.

She was soon ready to start, with a little of the food wrapped up in her blankets and in the waterproof cloth, with which she might make herself a shelter in case she had to camp out. Just then she decided that the present camping-place was bad. It was on a side hill, far from the water. It would be better to have it lower, near the river, where he could see down its course. She moved the tent nearly a hundred yards to a better place, and Pierre managed to reach it by leaning upon her shoulder with one hand.

Suddenly he rebelled.

"Look here, Anne Marie! I can't do it. I'd get the horrors sitting down here and waiting two or three days. There isn't much left to carry. I'll take my share of the grub and blankets and leave all the rest. You travel on as fast as you can, but I'll follow. I'll make crutches."

"No," said the girl decisively. "How can you use the stick snow-shoes? You would drop somewhere in the snow, or go through a hole in the river. You will freeze to death somewhere."

"I'll worry to death if I'm left here," he objected meekly.

"Then we go together," she answered.

Again she packed up the tent, the blankets and the food.

It was hardly more than one good back load and she swung it to her head with a tump-line. Before this she had made him a crutch—a mere stick with two spreading branches cut short—within the fork of which he could place his armpit. She tied a ski to his sound foot.

Pierre, at times, rested one hand upon her shoulder. Whenever his foot touched the ground he was in pain, but gritted his teeth and went on. It took them half an hour to go a few hundred yards. His uninjured foot slipped once, and he tried to save himself with the sore one. The pain was so keen and fierce that he had to sit down.

"I can't do it, *ma chérie*," he acknowledged.

It was the first time that he had ever used a term of endearment to her, and she wept as she knelt by him.

"Oh, I knew you could not do it. Have patience," she implored. "I can get there and back by to-morrow night or the next afternoon. Please have patience. I will come for you with plenty to eat. I will bring men and dogs. They will put you on a sleigh and take you down easily. Please have patience."

In her excitement she had taken his hand in hers, as she implored him. She was petting it and finally she kissed it—and the suffering man, weary and broken with pain, felt a tear coming. He took the fine, dusky, high-bred little head within his hands, and kissed her for the first time.

"Go, my dear. May Heaven be with you!" he said.

The tent was pitched once more. After she had spread out his blankets and placed the cooking things and plenty of wood near at hand, she started.

Paddy followed her for a moment and then went back to his master. Pierre motioned him away.

"Go on, Paddy boy; go on and bring her back soon."

The dog, barking, ran away to where the girl was disappearing in the distance. The ice was strong and she was running with an

easy lope that promised good time. When he reached her she bent low, patted his head and told him to go back. But he remained behind for only a few yards, and then came up to her again, and followed her on and on.

CHAPTER XIII.

The Long Wait.

ANNE MARIE bent to her task with all the energy that was in her wild, strong nature, without any waste of force. She ran on and on, and the dog followed her with tongue hanging from his mouth, as she came to the rapids of the second falls.

It was like a dream after a while; her eyes burned with the glare of the snow, and the pain of her legs possessed her, and her breathing came hard and gasping, but she went on and on, and the scenery she knew so well became unfamiliar. She was going on mechanically, scarcely conscious of fatigue, impatient where she had to walk, glad when she could run again.

The night was falling when, of a sudden, she recognized the rocky cliffs on either side of the first falls. Just beyond, in hazy faintness, a film of smoke was rising in the air. On the eastern shore there was a log cabin, and she was compelled to go some distance below the falls to find solid ice, in order to cross over.

She reached it at length, and a nondescript dog jumped at Paddy, and a fight followed, in which neither contestant had much the best of it, when Anne Marie, and a woman who came out of the cabin, interrupted the proceedings.

"Quick!" cried the girl. "Where are the men?"

"My man will come soon; he has gone down the river, on snow-shoes. He should be back now. What is it that you want?"

Anne Marie briefly explained her errand. The *monsieur* had plenty of money. It would be well worth their while to help him.

"The poor young man!" exclaimed the woman. "I remember him well. He stopped here on his way up. But come in; you are hungry."

The good soul immediately put water on the stove for tea, and brought out bread, and pork, which she began to fry, and buckwheat for cakes.

"I'll have it ready in a minute. You are perished with the cold. You've run from the *Portage du Diable* in a day. It is twenty-five miles just by the river. You have made a good deal more by having to go ashore so often. It is a terrible time to travel. Later on, when all the ice is solid, it is easier. It is a hard day's work for a strong man.

"I remember him well. He came all alone. My man said only yesterday that the young fool must have perished somewhere in the rapids. He is a very nice man. He gave my boy some fishhooks, and me a piastre for letting him stay here all night. I did not want to take it at first, but he insisted. It is a good deal of money, of course, and he must be a rich man."

"I wish your husband was here," interrupted the girl. "I suppose he has no sledge and dogs?"

"There is no sledge and team of dogs to be had nearer than the mouth of the river, and that's twelve miles farther down," answered the woman. "Sit down and eat; my man will be here very soon."

She placed the food on the rough table, and Anne Marie ate ravenously. Around her a number of small children stood up, looking at her open-mouthed. The two dogs were lying near the stove, having forgotten their quarrel. The woman put on her *capote,* to go out and see whether her husband was returning.

She returned in a few minutes with her husband, a rather elderly man, much broken by the terrible toil of the settler in hard countries.

"*Bo'jou',*" he said. "My woman has told me. I am glad the young fool is not drowned. It is a life to be saved, of course, but we can do nothing now. I will have to go tomorrow morning to the mouth of the river for a sledge and dogs and another man.

"I will start early and be back by tomorrow night. Then the next morning we will start. I don't think we will be able to make it that day, but we will be there early the next one. In the meanwhile you can stay here and rest yourself."

"No, I must take provisions and start right back," answered the girl. You do not understand. He has very little food. He is anxious, and suffers much pain. He is a *monsieur,* you understand, and is not used to hardships like ours. You will come as soon as possible. Make all speed! Promise to come at once!"

The man gave her, reluctantly, flour, pork, bacon, and a quart bottle of molasses.

She slept poorly on the rough board floor of the cabin that night, and was up before daylight. The good people gave her some

breakfast, and she wrapped up the food in her blankets and started. She tried to get the dog to stay behind, knowing he would be well cared for, but he pleaded so, she allowed him to come.

"He will be glad to see you; he loves you," she told Paddy, sadly.

The man promised to start at once; he felt sure that the next night, or on the morning after, he would be at the *Chute du Diable*.

Anne Marie felt stronger. She had borrowed a pair of regular snow-shoes and traveled swiftly. She ran on for an hour until it began to snow hard. Soon she saw nothing but a mist of heavy falling flakes, and the weather grew somewhat warmer.

All day she journeyed, but had to use a good deal of caution. Her former tracks were obliterated, and in many places the treacherous ice was covered. But with unerring instinct she kept on. With the heavier load she carried she was unable to make quite as good time; still, she felt that she could accomplish the journey by nightfall.

When she stopped at noon she felt very weary, but had accomplished more than half of the journey. She was not very hungry, yet she ate a little. Notwithstanding the added hardship of pain, she kept on and on, until, at times, she was dazed with the vast expanses of snow; until it seemed that there never would be an end to them—that she was fighting her way along to some goal that was always receding and never could be reached.

Yet the well-known portages went by, and she knew again every great blasted tree that arose gaunt and sad above the black line of the living ones. She recognized every great snow-covered boulder along the edge of the river; the cliffs, the low shores—the vast places where the water widened over the shoals, and the narrow ones where it raged through rocky cañons.

Finally she came in sight of the promised land. A long way off, as the light was just beginning to grow fainter, she saw the little tent. She uttered a long, ululating cry, hoping that he might hear. But nothing stirred, and she ran on.

Suddenly, she saw him crawling out of the tent on his hands and knees. He waved one hand at her, and she hurried on as if possessed of wings. Now she was hardly a hundred yards away from him and paid no more attention to her footsteps.

To be near him once more, to hear his voice, to give him food, to comfort him in his pain—what happiness!

The ice was bad at that place, owing to the fierce volume of water that ran under it, coming from the great falls just above. Several times it cracked under her, but she paid no heed, and suddenly it broke.

In an effort to save herself she threw herself forward, and the bundle she was carrying fell and disappeared in the loose, slushy ice that was nothing but a death-trap.

Fortunately she only partly sank. Her clothes and the loose ice partly kept her from going under, and she managed to keep scrambling on until, on her hands and knees, she reached solid ice once more.

It all happened so suddenly that she was safe again before Pierre had managed to take more than a few painful steps in her direction.

She ran toward him, wet and weeping.

"The food!" she cried; "the food! I was bringing you plenty—now it is gone!"

He put an arm around her neck, and patted her cheek, as if she had been a sorrowing child.

"Never mind," he said. "Thank Heaven, you didn't go under. Indeed, I am happy to see you safe and well. I have been very lonely without you, Ou-memeou."

But she could hardly be comforted. She wept as he made her go under the tent and take off the clothes that were freezing on her. She was soon wrapped up in his blankets, and he built a roaring fire just outside the tent, and hung her clothes as near it as he could with safety.

She told him the simple story of her journey.

"To-morrow night they will be here, with a sledge and dogs, and more food. Or perhaps not until the next morning; but they will surely come."

"Let us hope so," he said. "There is mighty little left."

"I could start back again to-morrow morning," she proposed. "Then I would not need food till night, and at the first falls there is plenty to eat."

"No, don't leave me again, Anne Marie. There is enough for a meal or two, and then we won't have to wait long. The time was very hard without you. I sometimes feared something would happen to you. It kept me awake during the night."

Pierre shivered as he thought again of all he had endured in her absence — the long day during which he had worried lest something should happen to her, and the fierce pain he had suffered from his injured ankle.

Then the night—tenfold longer, never

ending—when the cold had bitten him savagely and the suffering had grown worse and the horrors evoked by his imagination had crucified him!

He had seen her sinking through the ice and disappearing, and the thought that he would perish alone was nothing compared to the feeling that Ou-memeou would never again be near him!

The morning had come at length, and the booming of the great falls had seemed like a portentous voice calling out for lives, lives, more lives. When the snow fell again, it was a white fall, something that blotted out living things. It hid the world and stifled the cries of dying men.

He was thankful indeed to see her again. There was no more fear, nothing but the idea that Ou-memeou was near him, that he could chafe her cold hands in his, that he could kiss her dear face.

But he was shocked to see how dreadfully worn she was. Even during her illness up the river she had not looked so wan. Her dusky Indian complexion had become of a grayish hue.

On the next day they took the bit of meat that was left, boiled it and drank the soup. They also drank strong tea. Then they began to wonder whether the men would arrive that afternoon.

"The new snow has made the traveling hard," said Anne Marie. "I think they will only be here to-morrow."

When they had finally given up hope they went to sleep, very hungry, especially Pierre and the dog, since Anne Marie had partaken of two hearty meals at the first falls. On the next day they finished the little piece of boiled meat, and then nothing was left but a very small handful of rice and beans that they found at the bottom of one of the bags. But it did not matter; the men would come soon.

A any moment they might appear around the distant point, and then, how they would eat! They watched and watched, and dared hardly leave the bank where their lookout was, for fear of missing the first view of their arrival. Yet the hours were passing, and the men did not come.

Then they boiled the few beans and the grains of rice, which made but a couple of mouthfuls apiece, and drank more tea. Far into the night they watched and listened, but no one came over the vast expanse of snow and ice, and the woods were silent but for the wind that sighed through the trees, and the masses of snow that occasionally fell with a dull sound from the overladen branches.

Hunger was beginning to feel very painful. It was a sensation as if something living was gnawing them, but Anne Marie had often been hungry before. She said that this feeling would grow fainter and less troublesome soon, and then the men would arrive. They chewed pieces of leather from their tump-lines to give themselves the illusion that they were eating something, but poor Paddy whined often, and looked at them pitifully. They were very nervous from drinking tea without food.

When the morning came, they were very feeble, but they began to look down the river before it was really light enough to see very far.

Pierre placed his hand on Anne Marie's shoulder.

"I should have let you go back," he said. "It was selfish of me to keep you here. If you are strong enough, perhaps you had better leave me now and try to reach the first falls."

"I am glad," she answered. "I am happy to be here with you."

Her devotion touched him deeply. He knew by this time how dear he was to her. The love light in her eyes burned more brightly since her return. Their hunger and the cold seemed to put them upon a plane of equality. There was no longer a *monsieur* and a poor *Montagnais* girl, but merely two beings who had suffered.

As he looked at her, he began to worry over her thinness and the fact that she was again breathing with some difficulty. He felt no fear for himself, yet a chill passed through his heart at the thought that, if help did come, she might die before him. Yet she said she did not suffer.

Paddy rose restlessly, weak from hunger, and from the toil of preceding days, and begged for food, licking Pierre's hand with his dry tongue. Suddenly his master had an idea.

"Poor old Paddy," he said. "You've got to save us."

Sadly he took the little pistol out of the bag, and Anne Marie asked him what he was going to do.

"The poor old dog is starving, like us," he said. "I can't stand it any more; and you are looking so pale, so ill, you must have something to eat."

"Oh, wait till night!" she cried. "Just this day! You love the little dog! I love him, too! The sledge must come soon. It is two days late; they would not let us die!

They thought I brought back the food, and don't know we are starving! Please let him live!"

"Why, Anne Marie, you savages don't often care so much about a dog."

"Oh, we have to kill our dogs sometimes, but men often go terribly hungry before doing it. You are going away, you know, and then perhaps I will never see you again. Perhaps you will leave me the little dog to remember you by. I will love him much, always, and take good care of him."

Tears were coming down her cheeks, and she looked very feeble. Pierre was suddenly smitten hard, as he realized how this child of the wilderness had learned to love him. Tears came to him, too, and he crawled over to the girl who was lying down, bent over her and kissed her.

"You shall have the little dog, Anne Marie. He will love you, and I will love you also, always."

From the expanse of ice and snow that stretched south of them, came a shout and the firing of a gun. They crawled out of the tent and stood up, and a feeble cheer arose from them. Over the ice came two men and a sledge harnessed to five big nondescript mongrels. The rescuers were shocked to find them in such a state. In a few moments, there was food in abundance, which, at first, they were allowed to partake of only sparingly.

CHAPTER XIV.

Hand in Hand.

THE two men were new settlers on the lower eastern shore of the Peribonca. They explained that their dog team had been borrowed by a neighbor, who only returned it the day after they were notified. They were badly exhausted and had needed a rest. Coming up, they had experienced a hard time, owing to the deep snow and the poor ice, and the difficulty of getting the sledge over the portages. They also said that they were not *voyageurs,* and were not used to such long trips.

They did not possess a tent, and fixed up a little lean-to for the night. They were very tired, and as soon as they had eaten their supper, and fed the dogs, they went to sleep.

Pierre and the girl sat in the tent, looking at each other, wondering at the marvelous new element that had come into their lives.

Pierre felt very serious. He had decided that life with this little girl as a companion would be happy. He cared nothing for civilization. The great North had been very hard to him, yet he loved it. It was the country for him; far from the influence of those whose conduct is all fettered by metes and bounds.

He had savage blood in him, and it called him back. He would have nothing to do with the people of cities. He would trade in the furs of the North, and its lumber and mines. He would help open the country, and when it grew too civilized for him he would move on into the vastness, farther and farther on, and always he would have the love of this girl.

Surely Ou-memeou had in her every element that would make for his happiness. She was strong in mind, in love, in devotion. A rest would build her up again, and she would be his help among the vanguard of those who were uplifting the new empire of the North.

Anne Marie finally broke the silence.

"You must sleep," she said, "unless you want me to get you more food. To-morrow will be a hard day."

"You're a regular little mother looking after her little one," he replied, passing his hand over her head. "We will be out of the woods in a few days, *ma chérie,* and be no longer troubled with hunger and pain. And then we will make a new life for ourselves."

"A new life," she pondered. "The life now is very good."

"Why, Anne Marie?"

"Because," she answered, looking at the ground before her, "because I am with you, and through the cold and into the night that is enough to make a sunshine that warms my heart."

Pierre's arm went around her waist, and he drew her toward him and kissed her pretty oval face.

"I will try to keep the sunshine ever in that little heart of yours," he answered.

That night she had no wish to sleep, for it would interrupt her happiness.

Early in the morning the dogs were fed, the things packed on the sledge, and Pierre was placed upon it, suffering from a deep sense of humiliation at being obliged to ride while the others trudged alongside.

"*Marche!*" cried one of the men.

The dogs bent forward and threw their weights upon their harness, and the sledge slowly broke out, and they were off. Most

of the time the girl walked ahead, distrusting the ability of the two habitants to select the best and safest places. When they came to portages, or were obliged to go ashore on account of bad ice, Pierre generally had to get off the sledge. He would go on slowly, suffering excruciating pains in his wounded ankle. One hand rested upon the girl's shoulder, and he used his crutch with the other.

The rest he had had in the tent, while waiting, had not improved his leg. He could allow no weight at all to rest upon it. He had not taken off the boot since the accident, fearing he would not be able to put it on again, and often wondered what was really the matter with it. It must be something worse than a mere sprain. Sometimes the men had to carry him, and Anne Marie looked on jealously.

Another long day elapsed before they reached the first falls, and Pierre was taken into the log house for the night and made very welcome. Then came the farther trip, nearly to the mouth of the river, to the house of one of the men, who had two good horses.

Here they bade good-by to their two helpers, who opened their eyes at the liberality with which they were rewarded.

Pierre and Anne Marie sat in the log house that night, and their hands slowly clasped, then their arms held each other, and then their lips met.

"It was a long journey. I am glad it is over," said Anne Marie.

"A longer journey will begin for us, dearest. We will stroll together through life—unto death, my love. Shall it be so?"

"Yes," said Anne Marie softly.

(The End.)

NEW MALLET COMPOUND.

Great Northern Develops Special Type of Giant Engine for Its Heavy Grades in the Cascades and Rockies.

A NEW type of locomotive in use on the Great Northern Railroad somewhat similar in design to the Mallet compound is described in the *Spokesman-Review* as follows:

The total length of the leviathan is 92 feet, and it is capable of hauling from 100 to 120 fifty-ton cars on a level track.

The total weight of the engine with tender, is 468,000 pounds, while the tractive effort is about 60,000 pounds.

The rear engine has four pairs of driving-wheels, while the forward has but three pairs. The drivers are 55 inches in diameter. The cylinders of the rear pressure engine are 22 x 32 inches, while those of the forward engine are 33 x 32 inches.

The locomotive as it stands cost $30,000, and was built under the supervision of G. H. Emerson, superintendent of motive power of the Great Northern. Mr. Emerson has been in the employ of the Great Northern since a young man, having started in as a fireman in 1881.

The performance of this engine will be watched with interest, for if it does the work it was designed for in a satisfactory manner, the construction of others will follow.

The new engine is designed for use on the heavy grades encountered in the Rocky Mountains in Montana, and in the Cascade range in Washington.

The use of these locomotives does away with the use of double-headers and helping engines on the mountain divisions.

TORPEDO BLOCK SYSTEM.

WOULD railroad wrecks be any less frequent if the engineer, on approaching a point of danger, heard a bomb explode under his engine in addition to the visual but silent signal of the time-honored semaphore or "target"?

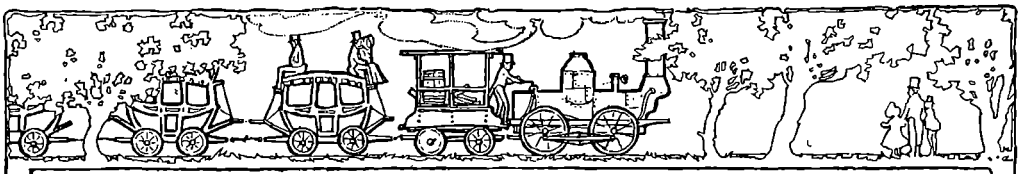
R. J. Zorge, of Chicago, who, when he is not selling wheat or corn on the board of trade, is an inventor, thinks he has a remedy for these accidents.

It is a device for exploding a small-sized bomb or a "torpedo" under the locomotive where it cannot fail to be heard both by the engineer and fireman.

It was with the idea of making use of the sense of hearing as well as that of sight that Mr. Zorge invented his automatic torpedo-magazine, which has now stood the test of a year and a half of continuous service without a failure, it is said, on the Long Island Railroad.

The torpedo-magazine consists of a rotating disk on which are twenty arms like the spokes of a wheel, each holding a torpedo at its extremity.

Underneath the disk is the mechanism for pushing one of the torpedo-arms out over the rail, and the whole is mounted in a cast-iron casing about the size of a washtub, with a cover which leaves a small aperture on the track side through which the torpedo is protruded when necessary.



The Railroad Man's Brain Teasers.

Perplexing Problems that May Possibly Produce Perfection in Precision, Perception, and Perspicacity.

MR. DAN M. POWELL, the N. P. operator at Black River, Washington, sends in the following:

(4.) How many times brighter will the headlight of a locomotive appear at a distance of 2 miles than it does at 6 miles?

(5.) An engineer, half a mile from a station, sees the semaphore light with a certain distinctness. How many times brighter will the light have to be in order to be seen with the same clearness at a distance of 2 miles?

From W. H. S. (address not given), we received this one:

(6.) A train with thirty cars, south bound, and a train with thirty cars, north bound, meet at a siding which will only hold thirty cars and an engine. The switch has thirty bad-order cars on it with draw-bars on at each end, so any of the cars to be moved must be pushed, not pulled. Each engine can only handle thirty cars at one time. Thirty bad-order cars must be left on switch as found. How do the two trains get past the bad-order cars?

The correct answers to these teasers will be found in our October number.

ANSWERS TO THE AUGUST TEASERS.

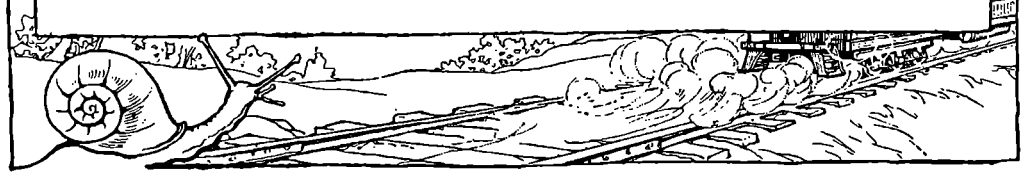
(1.) Both trains would be the same distance from Albany when they met.

(2.) Suppose the trains have each been running at a given rate of speed for 30 minutes, and that at that time the conditions of the problem are met in so far as equal distance is concerned. In 30 minutes, the flier would travel 30 miles and the freight 5 miles. At the beginning of the run the freight must then have been 55 miles ahead instead of 50. Then we have the following proportion:

55 : 50 :: 5 : x. X being the required result, which gives the value of x as 4 miles, 174 rods and 9 feet.

Adopting this result we find that the flier will have run exactly 27 3-11 miles, and that will be the distance between the trains.

(3.) Length of the line, 100 miles. Original speed of train, 25 miles per hour.



ON THE EDITORIAL CARPET.

Where We Keep a Uniform Pressure on Our Crank-Pins, and Force Quick-Action Wisdom Through the Think Nozzle.

OCTOBER is our anniversary—our fourth whistling post—and we are going to celebrate it by blowing off a few blasts of extra steam, just to show that we are carrying more pressure than ever, and that all our joints are as tight as they were on that memorable day, four years ago, when we started on our first run.

We have been bucking the grade pretty consistently ever since we left the shops, but we have had some mighty good tallow-pots and hoggers in the cab, and as for the cons and the shacks and the rest of the crew—they have been loyal workers who have gathered but a very few brownies.

You know their names as well as the engineer of an old peanut-burner knows a flooded injector, but, next month, we are going to show you some of their faces. For the first time you will be able to look into the countenances of J. E. Smith, Horace Herr, Robert Fulkerson Hoffman, Emmet F. Harte, Robert H. Rogers, Arno Dosch, Cy Warman, and other men who have helped to make this magazine.

It is going to be one hip-hurrah birthday number, with a line of short stories, special articles, and railroad yarns that will make you want to tear the throttle open, drive a wedge in the reverse, and chuck the air-lever out of the window. You won't make a stop until you have reached the last page.

When the con gives the high-ball for the Birthday Special, here are some of the things that will be aboard:

There will be a short story called "A Million Dollars," a tale of ingenious touches and intense speculation of a man who put a pile of gold on public exhibition.

Robert Fulkerson Hoffman will have a story of the tortures that a towerman suffered who was forced to remain on duty for over two days and nights. He had to keep awake all that time. Read how he did it.

R. K. Culver will tell of the scenic enterprises of a certain Westerner in a way that will make you want to tie down the laughter whistle until the end is reached.

Emmet F. Harte will be aboard with another yarn about Honk and Horace—our old friends. This time they encounter a young man of wild-eyed bravado, named Dauntless Dick.

There will also be stories by Frank Condon, F. H. Richardson, and C. W. Beels.

Among the special articles, Arno Dosch will describe the new Bergen tunnel, near Jersey City, a wonderful piece of engineering construction just completed by the Erie. The present-day tendency of railroads to burrow through the ground as they approach their terminals has been abandoned by the Erie, which believes in a right-of-way of fresh air and sunshine.

C. F. Carter has a most interesting paper about the fine art of running a freight-train. He will give us an idea of the grievances of the freight conductor whose train earns three times as much as the fast expresses which go by with a whirl while he is stewing on the sidings.

The home for aged and disabled railroad men at Evanston, Illinois, will be the subject of a special story.

Robert H. Rogers is preparing an interesting article describing, at length, the Walschaert valve-gear. It will probably go in the Birthday Special, but may be held for another month. We have had a great many requests for this article, and promise that it will be the last word on this interesting and timely subject.

In "Ten Thousand Miles by Rail," Gilson Willets will tell of the romances of the Crescent City railroaders—and they are the sort of romances which can only be credited to railroad men.

And then, "The Observations of a Country Station-Agent!" We would just as soon start on a night run without a headlight as to publish an issue without the quaint humor of our cheerful philosopher—J. E. Smith.

Yes, the Birthday Special will be a train of bright new steel cars with new uniforms for the crew, and everything in the best order.

The semaphore's down for October!

A LOCOMOTIVE'S LONG SUIT.

IN another part of our magazine this month, there is an article which, under the title of "The Best-Tailored Individual on the Line," sets up a spick-and-span new signboard at the various crossroads of railroad mechanical departments, and points the way afresh upon well-known paths of money-saving.

It has, besides, a peculiar interest of its own. It is quite aside from the beaten track of such statistics, even though it remains consistently throughout on the solid ground of fact. Indeed, it is very modest in its claims for the value of careful lagging and jacketing of locomotives or other exposed heated surfaces which are not intended for external heating.

Therefore, back here on the carpet, we follow the

trend of the article a little farther, even at the risk of producing figures which at first sight may seem too good to be true.

Suppose that, for safety's sake, we go quite below the twenty-six per cent for the locomotive and thirty-nine per cent for the preserving-cylinder, as recorded of the tests at Chicago and Las Vegas, and say that a locomotive properly protected with its modern "long suit" will save twenty-five per cent of the coal that a "naked" locomotive would have to use to do an equal amount of work.

Assume, again, that a ton of coal (averaging the country over) costs $1 delivered onto the tender of the locomotive. That is probably a very safe estimate.

Assume, then, that each locomotive in use on the interstate roads will, for 300 days out of 365, make an actual or constructive mileage of 100 miles a day and use, each day, 10 tons of coal. That is to say, each properly jacketed locomotive will make a total yearly mileage of 30,000, actual or constructive, and its coal bill will be $3,000. That, also, would be a very low and safe estimate so far as any fear of exaggeration may be considered.

And now for the fireworks!

Since we have taken the unjacketed engine referred to in Mr. Hoffman's article, as the basis of calculation, then the $3,000 fuel bill of the jacketed engine is only seventy-five per cent of what the naked engine's $4,000 bill would be, and the jacket stands to save an even $1,000 per engine, per working year of 300 days, as we have assumed it.

The latest available government report (Interstate Commerce Commission, 23d Report, 1909) gives the total number of locomotives, of all classes, in use by the common carriers on June 30, 1908, as 57,698! Just foot that up, please, at $1,000 saved per engine, per year. No, don't. We are not going to back away from it. We have come too near to finishing it. We shall foot it up ourselves.

It amounts to $57,698,000! No. That is not a misprint. Fifty-seven million six hundred and ninety-eight thousand dollars saved yearly in the United States by locomotive jackets, and they are not making a single hiss or sputter about it! Makes the whistle sound silly, doesn't it? But, then, there is no way of telling what the whistle saves, in one way and another, year in and year out!

There it all is! Figure it over for yourselves, and tell us where it is wrong.

HERE'S CLICKETY CLICK.

FOR over a year or more we have received numerous requests from readers in all parts of the country to print in The Carpet the touching poem by Cy Warman, entitled "Clickety Click." The words of this little railroad ballad made a great hit among trainmen from coast to coast at the time of its first appearance, years ago, and that its popularity still lives to-day shows that the merit it contains has not gone unappreciated with the passing of time.

Mr. Warman was kind enough to send us the verses, a few days ago, with permission to reprint them.

CLICKETY CLICK.

BY CY WARMAN.

CLICKETY click! as out of town
The engine picks her way;
Where bare-foot children, sunburnt brown,
In dusty alleys play.
All the summer, early and late,
And in the autumn drear,
A maiden stands at the orchard gate,
And waves the engineer.

He likes to look at her face so fair,
And her homely country dress;
She likes to look at the man up there
At the front of the fast express.
Clickety click! though miles apart,
To her he is always near,
And she feels the click of her happy heart
For the heart of the engineer.

Over the river and down the dell,
Beside the running stream,
She hears the clang of the engine-bell—
The whistle's startled scream.
Clickety click! An open switch—
Onward the engine flies.
Clickety click! They're in the ditch!
Oh, angels! hide her eyes!

Clickety click, and down the track
The train will dash to-day;
But what of the ribbons of white and black
The engine wears away;
Clickety click! Oh, worlds apart—
The maiden hangs her head.
There is no click in the maiden's heart—
The engineer is dead.

GREATER TERMINALS NEEDED.

JAMES J. HILL, chairman of the board of directors of the Great Northern Railway, prepared a paper dealing with the increasing necessity for greater terminal facilities, which was presented at a meeting of the Northern Association of Millers. In this paper Mr. Hill states that the "pressure upon the existing terminal facilities is a future menace and a present handicap." He says:

"For months it has been impossible to get freight shipments delivered promptly, if these have to be transferred at any of the central markets or principal terminal points.

"The flood of business that rose to such a dangerous height in 1907, is piling up again, with the additions made by national growth since then. The future will add in increasing ratio to these difficulties, as well as to the losses they involve.

"The only probable relief from the pressure on our transportation agencies, and especially on terminals, where the greatest difficulty exists, *is the decline of our export trade.*

"The demand of the home consumer is lessening the volume of our export of foodstuffs, and will affect similarly some other items on the list.

"But this change will bring relief to the carrier only in so far as export terminals are concerned.

"An enormous volume of new traffic is being de-

veloped by the industrial advance of the country between the Mississippi River and the Pacific coast. All of this must seek its market; and much of it will be added to the total that already overburdens our terminals.

"In the great markets of the eastern half of our country, the crisis has already arrived. Traffic growth and terminal congestion are applying the brakes to business progress. This means trouble for the whole country.

"*It is no more disastrous to have the banks close their doors than to have the railroads choked.*

"*The problem of terminals is the greatest problem of the country,* the problem of transportation agencies, of financiers, of the communities directly affected, and of all the industries that depend directly or indirectly upon cheap and speedy carriage for the commodities which they buy and sell.

"It is a problem for everybody, since probably not one business man in the whole country would fail to see the disastrous effects if it were to be neglected for the next five years as it has for the last ten, and to blight the present form of activity by paralyzing the whole trade."

It is not the province of the eagle eye and the con of this train to get mixed up in disputes of any sort, nor do we think that we are equipped to tell the nation how to run itself, or the I. C. C. how to fix rates. But we do believe, in our humble way, that these words of Mr. Hill have no leaks in the joints, and should be read as carefully as an engineer reads his orders, by every American citizen.

ANOTHER OLD ONE.

HERE is another old railroad poem for your scrap-books, boys. It was sent to us by Mr. J. W. Wood, of the Katy, who resides in Dallas, Texas. Sometimes we believe that in the four years since THE RAILROAD MAN'S MAGAZINE was started we have published about every old-time poem worth keeping—but some kind reader kindles our surprise with another. Do *you* know any? Have you an old poem tucked away in your scrap-book or your treasure-box which we have not published? If so, make a copy of it and send it in. Let's get all these good old songs and poems before the public through the columns of The Carpet. The poem sent to us by Mr. Wood is called:

HOW IT WORKS.

"WHAT would you do?" asked the fireman grim,
Of the sooty engineer,
As the latter turned and looked at him
With a patent, self-coupling sneer—
"What would you do if you jumped the track,
With another train in view,
And found you couldn't stop or back—
Then what d'ye s'pose you'd do?"

"Do!" cried the sooty engineer,
With a look of pluck on toast,
"You bet your shovel I'd stay right here,
And perish at my post!"
And the fireman gazed with mute respect
On his chum, and fed the flame,
And wondered, if the train were wrecked,
If he would prove as game.

The engine tore the starless night
Into long, thin shreds of dark,
And marked its headlong, reckless flight
With many a blazing spark;
And the engineer, on his locker perched,
Looked down on his humble friend,
Until on a switch the engine lurched,
And canted end o'er end!

And, there, in the broken, steaming wreck
The luckless fireman lay,
With a badly dislocated neck,
And a general look of decay;
And the passengers gazed upon the smash,
Where the ditch and the engine bumped,
To see the engineer all hash—
But they didn't—he had jumped!

A TECHNICAL BUREAU.

THE formation of a permanent technical bureau composed of active members of the Master Car Builders' Association was discussed at its recent convention. The members of the bureau, it is suggested, are to have a thorough technical training. President Wildin, the father of the idea, suggested that one member of this bureau be a salaried incumbent with a compensation which would permit a man fully equipped through experience and training to accept it. It was suggested that the bureau be given authority to act for the association on all important matters arising between the annual meetings, and that it make a report at the next annual meeting. There is much work that such a bureau could handle to advantage. The development during the past year, particularly in connection with government activity on railroad questions, shows the great necessity for having some organization of this character which can act officially on technical questions for the whole association.

THE LAY OF THE DEAD COW.

WE are indebted to one of our readers, who is connected with the M. and N. A. R. R., for the following poem. He tells us, in his very kind letter, that it was composed by one of the engineers. No names are given, but our correspondent assures us that the author was the man "who saw what was left of the cow."

COLLINS ON NO. 3.

BLACK killed the sheep and Collins the cow;
If you read these lines I will tell you how.
Collins changed the 3 for engine 1,
And said, "Old man, can this engine run?"
The old man said, "Well, I guess some.
Now, on straight track or around a curve,
To hold her open, you haven't the nerve."
So Collins started south on No. 3,
And the fireman was busy as he could be.
A mile south of Moro, out on the line,
Now, remember, Collins was making up time.
While looking ahead, he saw a cow,
And said, "The speed of this engine I will try now."

So he looked at the fireman and winked his eye,
And said, "Son, get busy, I am going to try
To show that cow what she is about;
She is on my time and no flag out,
And I tell you, lad, she will have to hump
If I don't put this engine against her rump."
The race was short, but the cow died game;
But you ought to have seen her, behind the train—
A few crushed bones, an old loose hide,
So you may guess why this cow died.
This cow was a scrub, but she is dead,
And the company will pay for a thoroughbred
Jersey heifer or a Hereford bull,
Because the farmers have a pull
With the lawyers, judge, and the jury, too,
And a railroad company. They always do
Get good money and then smile and tell,
They have another fine cow they wish to sell;
And will sell it, too, because it is fine,
The next time Collins comes down the line.

OUR THANKS FOR THIS.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I HAVE been a consistent reader of THE RAILROAD MAN'S MAGAZINE since its initial appearance, and I wish to state that I have never found anything in this class of literature that ranked anywhere near THE RAILROAD MAN'S.

It is the only periodical that I can read with the same untiring interest from cover to cover, and the only one that tells railroad stories in railroad style, and is thoroughly appreciated by railroad men.

The true story series is a feature that is worth the price alone, while "By the Light of the Lantern" department is enjoyed by every one from the master mechanic to the humblest grease-wiper. The "Observations of a Country Station-Agent" is O. K., and the pen pictures of Emmet F. Harte would chase the frowns from the most dignified official of any railway system in the country.

C. R. HOWTON,
Thomas, Alabama.

AGAINST THE PHONE.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

NOT wishing to place ourselves in the large columns, we want to say that when THE RAILROAD MAN'S MAGAZINE comes around, it is like shaking hands with some of the old boys we knew in former days.

Let them come same as ever. There's always a feed and a place to kip, and the lake is fine.

No hard feelings, but please try to cut out the "gag" on the telephone business, because an "opr" is at 150 par this date. Any of the boys write. 73 to all.

"BLOND JACK," H. W. TAYLOR, "AY," and E. B. TAYLOR, U. S. Signal Corps, 1900. "YN."

RECORD FOR REPAIRING ENGINES.

IN repairing locomotives the Lehigh Valley shops at Sayre, Pennsylvania, recently established a new time record. For the seven months from September 30, 1909, to May 1, 1910, one repaired locomotive was turned out every three and a half working hours. The Lehigh Valley repair-shops at Sayre are the largest under one roof in the United States. The force of employees includes one thousand men who work on locomotives alone, four hundred and fifty on freight-cars, and one hundred and fifty on passenger-cars. The whole plant covers fifty-seven acres.

TO PREVENT RAILROAD ACCIDENTS.

THE Chicago and Northwestern Railway has taken a step in the right direction by appointing an official whose chief duty is to make a study of railway accidents, and by a system of education and strict enforcement of discipline, endeavor to eliminate the most fruitful cause of injuries to passengers and damages to freight. Opportunity was recently taken of the reorganization of the company's claim department, says the *Scientific American*, to relieve the claim-agent of much of the detail of his work, and allow him to make a careful study of the causes of all accidents in the handling of passengers and freight. It will be his duty to bring about a more thorough cooperation and a higher state of discipline among the various employees, upon whose fulfilment of their duties the safe operation of the trains immediately depends.

The scheme is a most excellent one, and we believe that its results will be so satisfactory as to lead to similar arrangements on at least the more important railroads of the country.

AT THE END OF THE WIRE.

A GOOD friend sends the following poem for The Carpet. It sizes up the joys and troubles of a despatcher's office just about right, doesn't it? How many of you have had such experiences as this:

IN A DESPATCHER'S OFFICE.

BY CHARLES W. BILLMAN.

THE train-despatcher's office, you all are aware,
The operation of railroading comes under its care.
'Tis an office which never is allowed to close,
Midnight to midnight, as the year around goes.

They arrange the make-up of a train,
Advise when and where a crew gets same,
Supplies cars to points issuing requisition,
And has the authority in furnishing disposition.

The train-despatcher, from a certain point of view,
Deserves great credit and all that is due.
He must be exact and accurate where responsibility lies,
And be able to answer any question that may arise.

To insure safety, the train-despatcher must
Assume great responsibility, hope, and trust,
In his ability to protect and guide
The movements of trains, the schedules he provides.

Serious incidents, in many instances, every day,
Will cause some trains more or less delay,
Especially on single track, where advantages lack
Those of on double, where they run opposite track.

From various points out over the line,
Reports of trains, both late and on time.
First, second, third class, local, and through,
As well work-trains, specials, and extras, too.

The B. & O. reports two sections on 94,
546 late, about three hours or more.
What's to be done with the emigrant crew?
Only one on 512, no D. H. equipment for you.

690 has perished and a lot of stock,
Feed and water limit expires at four o'clock.
To get this train through without delay,
The train-despatcher must some figuring display.

Extra 692, with an important train,
Standing still on the eastbound main.
To clear per diem, they must clear track
For following trains that got up in back.

C. & E. extra 692 from "S F" wires:
"Can go no farther, must draw fire.
Please advise what we shall do,
Oh, you, Mr. Despatcher, it's up to you."

To conductor, extra double-header, "G U,"
Reduce train 700 tons and go through.
Engine 461 fix fire, have tank full,
Return from "X G" for another pull.

L. V. advises two on No. 8,
First regular train one hour late.
Second, close with 200 or more
Passengers for Atlantic City from Lake Shore.

Extra 561 south, by 10.23,
Reports the signalman from "S D,"
Has a hot-box, second car from hack,
Sparks flying bad all over track.

To operator, "B G," m's'g for 79,
Give cause of delay and poor time.
Replies the conductor: "Hung up on hill,
Train parted twice and pulled out end-sill."

"Where is the pusher?" asks "O D."
"Two coal-trains are ahead 'P. B.-3';
Yard is tied up until they clear;
Buck cannot work or move cars from here."

To "S N," east copy 7,
Engines 1505, 1506, and 911
Will run extra "S N" to "O D"
Ahead of train No. 133.

The numerous trials a Despatcher must undergo,
Occur momentarily, as his records will show.
The few instances above all will require
Practical experience at the end of a train wire.

Philadelphia and Reading Railroad Men.

PERCENTAGE OF LOCOMOTIVES.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN the August number of THE RAILROAD MAN'S MAGAZINE, page 420, "E. R.," of Parsons, Kansas, asks: "What is meant by the percentage of a locomotive?" which question you were unable to answer.

The only way in which I have known the word percentage to be used in connection with locomotives was in reference to their hauling capacity or tractive power. Some roads term their most powerful locomotives 100-per-cent engines, and the smaller ones are rated in proportion. For instance, if the 100-per-cent engine has a tractive power of 40,000 pounds, one having a tractive power of 30,000 pounds would be a 75-per-cent engine, and so on.

The New York Central lines base their locomotive hauling capacity percentages on 100,000 pounds. They have, of course, no locomotive having such high tractive power, but this system is much simpler than the other; an engine having 50,000 pounds tractive power being a 50-per-cent engine; one having 32,000 pounds being a 32-per-cent engine, and so on.

These percentages are all entered in the locomotive classification book, opposite the number of each engine, so that even an inexperienced person can see at a glance the relative hauling capacities of all the locomotives on the system, and the approximate tractive power of each locomotive.

C. D. WRIGHT,
Cleveland, Ohio.

FASTEST THING ON WHEELS.

IN our July number, we published an item from *The Engineering Record,* stating that the fastest mile on record was made by Barney Oldfield in the automobile "Lightning Benz," at Daytona, Florida, March 16, last. The figure touched by Mr. Oldfield was 131.72 miles per hour, a measured mile being covered in 27.33 seconds.

We received a great many communications regarding this burst of speed, many claiming that the writer was mistaken—that faster miles had been made. One of the most interesting of these communications is from the Kansas City *Star*, and we publish it herewith:

In a recent issue of the *Star* I read an item in which it was said that a mile in 29 seconds, made by a motor-car, was the fastest ever traveled by a human being. An incident in which a locomotive greatly exceeded this speed came under my notice many years ago. It may be interesting.

In 1883 I was station-agent at Bonfield, Illinois, on a branch of the Big Four Railway. Two passenger-trains met there daily at 1.10 P.M., that going east having the right-of-way. Kankakee was the next station east of me, eleven miles away. If the west-bound train was a bit late it was customary for the despatcher to give it a "time-order" against the east-bound train to reach Bonfield.

Billy Campbell was running the "52" one day on the west-bound passenger—a big engine with 80-inch drivers—and almost invariably when he had that train he was late, and invariably he had to ask for "help" to reach Bonfield, to meet the east-bound train. Finally, the despatcher tired of it, and on this particular day inquired of Conductor Lester, at Kankakee, why he couldn't make his thirty-miles-an-hour schedule.

"Tell him," Lester replied, "that Campbell is our engineer." Now, it chanced that Campbell, oiling his engine, heard this answer, and it angered him so that he hopped aboard the "52," Lester caught the rear car, and, before the despatcher could send the usual time-order, the train had gone.

The Illinois Central crossing was a quarter of a mile from Kankakee; a half-mile farther on was another dead stop for the draw-bridge over the Kankakee River; then came three miles up-grade out of the Kankakee River Valley, and then eight miles of straight track down a slope of twenty feet to the mile into Bonfield—and just ten minutes for the "52" to make it.

Allowing three minutes for the two dead stops, seven minutes remained for the eleven miles. When we, at Bonfield, saw Campbell's smoke as he came over the summit of the grade, he had exactly three and one-half minutes left for the eight miles straight-away.

Campbell probably was running seventy-five miles an hour then; the train was swaying; the passengers, as we afterward heard, were clinging to the seats in fright. The landscape, they said, was only a blur.

About a mile and a half from Bonfield Campbell shut off steam, closed his throttle, and rolled into the station ten seconds ahead of time. He had made the eight miles in 3 minutes and 20 seconds, not allowing anything for the time lost in coming to a stop. It was figured that he must have covered some miles in 21 or 22 seconds.

Was it possible for an engine to do that? I rely on the train-sheet figures as they were reported. And I know that when the train stopped Conductor Lester went forward and told Campbell that if he ever did such a thing again, with him aboard, he'd shoot him.

AN OLD STATION-AGENT,
Curlew, Washington.

SEVENTEEN BILLIONS IN RAILROADS.

IN spite of those who are still moaning about hard times and more panics, the railroads are forging ahead at a rate that tells an entirely different story. More figures showing the ever-increasing golden hoard represented by the railroads of this country were recently made public by the Interstate Commerce Commission, disclosing the fact, that on June 30, 1909, the face value of the amount of railway capital outstanding was $17,487,868,935. Of this amount $13,711,867,733 was in the hands of the public.

Of the total capital outstanding, there existed as stock $7,686,278,545, of which $6,218,382,485 was common, and $1,467,896,060 was preferred; the remaining part, $9,801,590,390, represented funded debt, consisting of mortgage bonds, $6,942,012,066; collateral trust bonds, $1,147,377,191; plain bonds, debentures, and notes, $803,537,301; income bonds, $284,497,531; miscellaneous obligations, $316,297,240, and equipment trust obligations, $307,869,061.

Of the total capital stock outstanding, $2,766,104,427, or 35.99 per cent, paid no dividends. The amount of dividends declared during the year was $321,071,626, being equivalent to 6.53 per cent on dividend-paying stocks. No interest was paid on $718,351,332, or 7.57 per cent of the total amount of funded debt outstanding, omitting equipment trust obligations.

The total number of persons reported as on the pay-rolls of the steam roads of the United States on June 30, 1909, was 1,502,823, or an average of 638 per 100 miles of line. As compared with returns for June 30, 1908, there was an increase of 66,548 in the total number of railway employees. There were 57,077 enginemen, 60,349 firemen, 43,608 conductors, 114,760 other trainmen, and 44,698 switch-tenders, crossing-tenders, and watchmen. The total amount of wages and salaries reported as paid to railway employees during the year was $988,323,694.

The summaries show that on June 30, 1909, there was a total single-track railway mileage in the United States of 236,868.53, indicating an increase of 3,215.18 miles over the corresponding mileage at the close of the previous year. Substantially complete returns were rendered to the commission for 235,402.09 miles of line operated, including 9,396.35 miles used under trackage rights. The aggregate mileage of railway tracks of all kinds covered by operating returns was 342,351.24.

During the year railway companies owning 2,706.56 miles of line were reorganized, merged, or consolidated.

SPEED IN THE SOUTH.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

SINCE the first number of the best magazine on railroading published in the United States—THE RAILROAD MAN'S MAGAZINE—appeared, I have read each issue from the pilot to the markers on the dog-house. Each number is better than the preceding one, and if the good things increase as they have heretofore, it will take a bimonthly issue to get it all in.

Articles on speed records have held my greatest interest, and a number with such articles is put with a separate file to refer to at odd times. In all these articles, I cannc recall to mind just at the moment whether there has ever been anything about speed-records in the South. Trains in this part of the world are conceded to be slow; but, with permission, I would like to present a few records.

The old Plant System, which was dealt with some months ago in an article about the founder of the line, Henry Bradford Plant, holds the world's record for short-distance speed. In March, 1901, an extra, pulled by a 19-inch ten-wheeler, built by the Rhode Island Locomotive Works, made the run from Fleming to Jacksonville, Florida, a distance of five miles, in the short time of two minutes and thirty seconds, flat—a speed of 120 miles an hour. Several of these engines are still in service between Jacksonville and Waycross and Savannah, Georgia, changed to Atlantic Coast Line, and numbered from 200 to 210, inclusive. How many cars were in the train at the time the run took place, I cannot say, but it is improbable that there were more than three.

Then, again, in 1894, the Plant System and the Atlantic Coast Line, jointly handled a train from Jacksonville to Richmond, Virginia, a distance of 661.5 miles, in 12 hours and 51 minutes, at an average speed of 51.48. Considering the conditions to be met with in Southern railroading, this run was remarkable, as also was the run made in March, 1903, from Jacksonville to Savannah, 172 miles, in 2 hours and 32 minutes, by the Atlantic Coast Line, with the old Plant System's equipment. The speed for this run was made at an average of 70.7 miles an hour.—D. V. H., Tampa, Florida.

Soon housewives will know

"Two Methods and a Moral."

The woman who escapes from the tyranny and drudgery of old-fashioned, insanitary heating methods to that of cleanly, automatic heating is surely open to congratulations. Too many housekeepers are chained to brooms, dust-pans, and back-breaking coal hods because of the relentless slavery to stoves and hot air furnaces. There's a way out—

AMERICAN & IDEAL RADIATORS BOILERS are the only means of warming a house without adding to the labor of its care. These outfits of IDEAL Boilers and AMERICAN Radiators are absolutely clean, will outlast the building itself; and the fuel and labor savings soon repay their cost, and thereafter prove to be big profit-makers. Step into any sky-scraper office building or fine store and you will see they are equipped with our outfits — the name of our Company you will find cast on the end of each radiator. It is an evidence of the high quality of our goods, also significant of the fact that men would not put up in their places of business with the annoying heating methods that their wives patiently endure.

To continue to use old-fashioned heating reflects upon the housewife—robs her of the few hours per day which she should be able to devote to better things. Buy an outfit of IDEAL Boilers and AMERICAN Radiators and like thousands of others who have bought, you will joyfully pass the good word along. Don't wait to build a new home or until another Winter. Put comfort into your present house—now done without tearing up, or disturbing old heaters until ready to put fire in the IDEAL Boiler. Write us today for catalogue, "Ideal Heating Investments."

A No. 412r IDEAL Boiler and 420 ft. of 38-in. AMERICAN Radiators, costing the owner $190, were used to Hot-Water heat this cottage.

At these prices the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.

Showrooms in all large cities

AMERICAN RADIATOR COMPANY

Write to Dept. J Chicago

Velvet

THE SMOOTHEST TOBACCO

Velvet does not rely upon the blender's skill to make it delicious. The mild, mellow, nut-like taste is given it by nature. It is just straight Burley leaf,—the best we can buy —made up into as fine a smoke as you could wish.

It does not burn the tongue or dry the throat. One trial will convince you of its superiority.

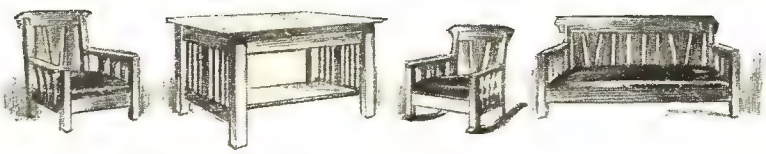
Full Flavored and Fragrant

AT ALL DEALERS

10 Cents

Packed in a neat metal case that just fits the hip pocket. Also in 8 and 16 oz. canisters with humidor tops, which keep the tobacco moist and are an ornament to any smoker's den.

SPAULDING & MERRICK
Chicago, Ill.



This $87.00 Library Suite for $39.25

Send for our Free Catalogue

No matter how doubting you may be about the satisfaction to be derived from our furniture, which you set up in sections yourself.

THE result is a beautiful piece, high grade in every way, and the saving is more than half. This big saving we can prove to you by our catalogue. It shows many designs in the popular Mission, and the latest rage, Flanders. Our guarantee of satisfaction to you puts our proposition where you take no risk of not being pleased. Your money back if you want it. Either plain or quarter sawed white oak. Stained and finished free if desired.

Look over these bargains:

$17 00 Chair, with cushion	$ 7.75	$35.00 Davenport, No. 3	$16.25
30 00 Settee, with cushion	13.50	25.00 Morris Chair, No. 16	12 25
15.00 Chair, with cushion	6.75	8.00 Foot Rest, No 422	4.00

Ask for furniture catalogue No. 11

Brooks Mfg. Co., C. C. Brooks, President
6709 Rust Avenue, Saginaw, Mich.

ELGIN WATCHES ON CREDIT

17 Jewel Elgin—Our Great Special $13.75 Sent Anywhere on FREE TRIAL

Guaranteed to keep accurate time. Fitted in double stock gold-filled case, warranted for 20 years.

You do not pay one penny until you have seen and examined this High-Grade 17-Jewel Elgin Watch, in hand-engraved case, right in your own home. You are to be the Judge. Let us send it to you, all charges prepaid. If it suits you

PAY ONLY $1.50 A MONTH

We trust every honest person. No matter how far away you live, or how small your salary or income, we will trust you for a high-grade Elgin Watch, in gold case, warranted for 25 years, and guaranteed to pass any Railroad inspection. Write for our big free Watch and Diamond Catalog. It tells all about our Easy Payment Plan—the "Loftis System"—and how we send Elgin B.W.Raymond and Waltham Watches, 12, 16, 18, and "O" sizes, 19, 21, and 23 Jewel, anywhere in the world, without security or one cent deposit. Send for the Loftis Magazine, Free.

LOFTIS BROS. & CO.

THE OLD RELIABLE ORIGINAL DIAMOND AND WATCH CREDIT HOUSE

Dept. K 661 92 to 98 STATE ST., CHICAGO, ILL.

Branches: Pittsburg, Pa., St. Louis, Mo.

YOU $5 TO $10 A DAY NO EXPERIENCE

YOU, even if you never sold a dollar's worth of goods in your life, **make $5 to $10 a day**—selling our made-to measure suits and pants.

This Is Your Chance To Make Money

We sell suits from **$2** to **$10** cheaper than anybody else on earth. You can undersell all others. Our agent (Ohio) **made $75 first week**, another (Texas) **$33.50 in 3 days**, another (Kas.) **$15.50 the first day.** They did not set foot out of their own towns to do it.

Big Pay--Easy Work

That's what you want, isn't it? We sell our clothes through agents only and have built up the biggest clothing business in the country this way alone. We give you exclusive territory, protect you and **back you with all our capital.** We supply everything you need to

Make $3,000 A Year

Never before have you had such an opportunity as this—never, for

We Start You FREE

You need no experience and no money. We will send you on receipt of your name and address full particulars of the biggest suit offer ever made, our complete outfit, samples, styles and everything needed to go to work now. Write quickly and learn how to get your clothes at cost to advertise us.

THE REGAL TAILORING CO.
191 Market St., Dept. 403, Chicago.

UTICA

ATHLETIC Suspenders

GUARANTEED *For One Year*

25c a Pair

Buy from your dealer or from us by mail if your dealer hasn't them.

CURE your ***suspender ills*** and cut your ***suspender bills.*** "UTICA ATHLETIC SUSPENDERS" give full ***sway*** to the body and free ***play*** to the muscles. 100 per cent ***comfort***—50 per cent lower in ***cost.***

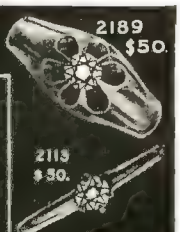
No ***shoulder-strain.*** They yield to *you* in motion. Buy a pair. You'll like them.

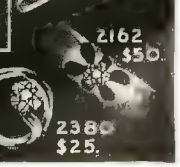
UTICA SUSPENDER CO.

335 Columbia Street, Utica, New York

Canadian Manufacturers: Imperial Glove Co., Ltd., Hamilton, Ont.

DIAMONDS·ON·CREDIT





20% DOWN—10% PER MONTH

Why wait for your Diamond until you have saved the price? Pay for it by the Lyon Method. Lyon's Diamonds are guaranteed perfect blue-white. A written guarantee accompanies each Diamond. All goods sent prepaid for inspection. **10% discount for cash.** Send now for catalogue No 97

J. M. LYON & CO., *Established 1843* 71-73 Nassau St., New York

Try it on

SALADS

and get that piquancy so often lacking in salad dressings. Use

LEA & PERRINS
SAUCE

THE ORIGINAL WORCESTERSHIRE

It is a royal relish for many a dish! Soups, Fish, Roasts, Steaks, Chops, Gravies and a little on Cheese is delicious.

Refuse Imitations.

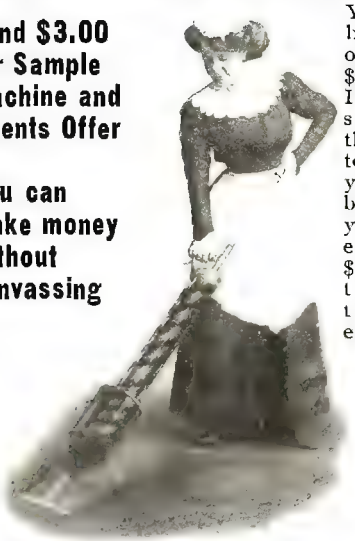
JOHN DUNCAN'S SONS, Agents, New York.

A $10.00 Vacuum Cleaner for $3.00

It will do the work of any $150.00 machine

Send $3.00 for Sample Machine and Agents Offer

You can make money without canvassing



You can buy only one at the $3.00 price. If you can't spare all the money today get your neighbor to join you and each pay $1.50 or two of them and each pay $1.00. You can share machine.

THE "SO E-Z" IS THE BEST. EVERY MACHINE GUARANTEED FOR 10 YEARS. Send for sample and terms today — now.

FULTON METAL WORKS, FULTON, ILL.

Mr. Edison's LATEST
Supremely Fine Phonograph

A musical wonder—a perfect reproducer of sound—unsurpassable in clearness and beauty of tone.

Double Reproducer — **Amberol Records**
New Style Floral Horn — **New Style Cabinet**
The Latest Model High Grade Edison

OUR OUTFIT NO. 9—Just Out

playing the wonderful new Amberol records

Free Loan

We ship on a free loan—no money down—do not pay us one cent, C.O.D.—take the outfit to your home on our free loan offer.

You Need Not Buy Anything: **All we want** on this free loan is that you convince yourself of the absolute superiority of this superb new style instrument. **All we ask** is that you let your family and a few of your neighbors and friends hear the Edison when we send it to you on a free loan. Let them hear the magnificent music, operas, comic songs and funny recitations—then let them judge. If any of your friends then want an Edison, we will feel thankful to you, or if you want to keep yours, you may keep it, on the easiest monthly payments: as low as **$2.00 a month—$2.00 a month for an Edison.**

But if you and none of your friends want an instrument just now, there is no harm done. Just return the outfit at our expense and **we charge you nothing for the free loan.**

We simply want everybody to hear the latest product of Mr. Edison's skill.

Now Write for the free catalog and free list of Edison records, operas, songs and comic recitations that you want to hear on this free loan. Just put your name and address on a postal or in a letter, or sign and mail the coupon. No letter necessary if you send the coupon.

F. K. BABSON
EDISON PHONOGRAPH DISTRIBUTERS
Edison Block
Dept 1106
Chicago, Illinois

F. K. BABSON, Edison Phonograph Distributers
Edison Block, Dept. 1106, CHICAGO, ILL.

Canadian Office: 355 Portage Ave., Winnipeg, Canada

Please send me without obligation, your Edison Phonograph Catalog, list of Edison Records and free Trial Gold Moulded and Amberol Records and your grand offer, all free. Also send me your 1910 Edition, entitling me to your grand offer, all free. Certificate entit.

Name.....

Address.....

.....

Sign and Mail this Coupon Today

READ THIS

AGENTS

Write for territory today. Biggest seller ever invented. No experience necessary. Edw. McGough, O., says: **"Made $160.00 last week.** Easiest thing in the world. Everybody buys." E. J. Dirr, Michigan, writes: "Eighteen orders one day—**profit $22.50.** No trick at all—**just show and take the order."**

New Chemical fire extinguisher. Absolutely guaranteed. Always ready. Acts instantly. Even a child can use it. **Death to any fire.** A marvel of science. Sells itself. No talking necessary. We want you to be our agent in your territory. **You can make $4000.00 this year.** But don't delay. **Investigate.**

AMAZING INVENTION

F. J. Baughman, O., says: "Sold 15 first day. Going fine, **fine, FINE,** ship 250 at once. Hurrah for more business." I. C. Gordon, Ind., telegraphs: "Ship 150 today. **All sold out. Everybody wants to buy."** G. J. Hoyt, Pa., called up by telephone and ordered 100. He said: "The fastest seller in the world. **My boy, 14 years old, sold six yesterday afternoon."** O. R. Joy, Ill., says: "Started out 10 a. m. **sold 14 by 3 o'clock."** Hundreds are getting rich. We want a good man in every territory to work on 166 2-3 percent profit. No risk. **Free** samples to agents. **SEND NO MONEY.** Only your name and address on a postal card for complete information, offer and valuable statistics on fire losses **FREE.** Write at once. Give name of county.

THE UNITED MFG. CO.,

[Reference: The Bank of Leipsic Capital: $1,000,000.00]

191 Mill St. Leipsic, O.

Illustration drawn from Life

Anyone can successfully do this work. All we require is honesty and industry. No experience necessary. We teach you how to make one-minute demonstrations that simply amaze everybody. You will demonstrate to homes, schools, theatres, factories, churches, public buildings, fire departments, city councils, etc. Everybody is interested. Everybody a customer. Work can be done in spare time at the start, if necessary. Women successful the same as men.

$50.00 Weekly Profit!

This is what hundreds of our operators are earning. This is what **you** can easily earn, making photo buttons with the

Wonder Cannon Camera

A big, pleasant profitable business at fairs, picnics, carnivals, on street corners, in fact everywhere people gather.

Positively No Experience Required

The Cannon Camera makes eight finished photo buttons in one minute, ready to wear.

Only $27.00 needed to start this big money-making business. This pays for complete outfit consisting of **Cannon Camera,** tripod and supplies for making 400 finished photo buttons that sell for 10c and 15c each. Sale of finished buttons at 10c each, net $40.00. This leaves a nice profit above the original investment, besides the ownership of **Cannon Camera** and tripod. Extra button plates, $1.00 per hundred. Extra gilt frames, $1.25 per gross. **Write today for FREE CATALOG.**

Chicago Ferrotype Co., Dept. 26, Chicago, Ill.

We Ship on Approval

without a cent deposit, prepay the freight and allow **10 DAYS FREE TRIAL** on every bicycle. **IT ONLY COSTS** one cent to learn our *unheard of prices* and *marvelous offers* on highest grade 1911 models.

FACTORY PRICES *Do not buy* a **bicycle** or a pair of **tires** from *anyone* at *any price* until you write for our new large **Art Catalog** and learn our *wonderful proposition* on the first sample bicycle going to your town.

RIDER AGENTS everywhere are making big money exhibiting and selling our bicycles. **We Sell** cheaper than any other factory. **TIRES, Coaster-Brake rear wheels, lamps,** repairs and sundries at *half usual prices.* **Do Not Wait;** write *today* for our *latest special offer* on "Ranger" bicycle.

MEAD CYCLE CO. Dept. R 31 CHICAGO

SALESMEN & SALESWOMEN WANTED

Thousands of good positions now open, paying from $1,000 to $5,000 a year and expenses. No former experience needed to get one of them. We will teach you to be an expert salesman or saleswoman by mail in eight weeks and assist you to secure a good position and you can pay for your tuition out of your earnings. Write today for full particulars and testimonials from hundreds of men and women we have placed in good positions paying from $100 to $500 a month and expenses. Address nearest office. Dept. 403.

NATIONAL SALESMEN'S TRAINING ASSOCIATION

Chicago, New York, Minneapolis, Atlanta, Kansas City, San Francisco

"The Story of an Extraordinary Advertising Service"

An illustrated brochure on magazine circulation that goes down to the root of a big question, in the way an advertiser ought to know it. It is sent free.

The Frank A. Munsey Company

175 Fifth Ave., New York

WHITE VALLEY GEMS IMPORTED from FRANCE

SEE THEM BEFORE PAYING!

These Gems are chemical white sapphires. Can't be told from diamonds except by an expert. Stand acid and fire diamond tests. So hard they can't be filed and **will cut glass.** Brilliancy guaranteed 25 years. All mounted in 14K solid gold diamond mountings. Will send you any style ring, pin or stud on approval—all charges prepaid—**no money in advance.**

☞ **Write for Free illustrated booklet, special prices and ring measure.**

WHITE VALLEY GEM CO., 704 Holiday Bldg., Indianapolis, Ind.

One Telephone, Dumb; Five Million, Eloquent.

If there were only one telephone in the world it would be exhibited in a glass case as a curiosity.

Even in its simplest form telephone talk requires a second instrument with connecting wires and other accessories.

For real, useful telephone service, there must be a comprehensive system of lines, exchanges, switchboards and auxiliary equipment, with an army of attendants always on duty.

Connected with such a system a telephone instrument ceases to be a curiosity, but becomes part of the great mechanism of universal communication.

To meet the manifold needs of telephone users the Bell System has been built, and today enables twenty-five million people to talk with one another, from five million telephones.

Such service cannot be rendered by any system which does not cover with its exchanges and connecting lines the whole country.

The Bell System meets the needs of the whole public for a telephone service that is united, direct and universal.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

Will Old Age Find YOU Still Drudging Along?

What is life going to mean to you? Is it going to mean comfort and prosperity, or is lack of training going to condemn you to hard labor for the rest of your days?

You are facing a serious problem—one that affords absolutely no compromise. To ***earn enough*** to command the ***comforts*** of life you must have ***special training,*** or else be content to fall in line with the huge army of the untrained, the poorly-paid, the dissatisfied, the ***crowd in the rut.***

For ***you,*** there ***is*** a way to success—a true way—an easy way—a short way. Are you willing to have the International Correspondence Schools of Scranton ***make you an expert in your chosen line of work,*** in your spare time, without your having to leave home or stop work? ***That*** is the way. It is the way that meets ***your*** special case. The ***terms*** are made to suit ***your*** means. The ***time*** is arranged to suit ***your*** convenience. The ***training*** is adapted to fill ***your*** needs. If you are willing, ***mark the attached coupon*** to learn all about it.

FREE YOURSELF

That the I. C. S. can help you is shown by the 300 or so letters received every month from successful students who VOLUNTARILY report ***better positions and salaries as the direct result of I. C. S. Help.*** During June the number was 285. Mark the coupon.

Next month, next week, tomorrow, ***even an hour hence*** may be too late. Mark the coupon ***now*** and so take the first step to escape life-long servitude. Marking it entails no obligation—it brings you full information and advice regarding the way to ***your*** success.

Mark the coupon NOW.

INTERNATIONAL CORRESPONDENCE SCHOOLS.
Box 1003, SCRANTON, PA.

Please explain, without further obligation on my part, how I can qualify for the position, trade or profession before which I have marked X.

General Foreman	Electrical Engineer
R. R. Shop Foreman	Machine Designer
R. R. Traveling Eng.	Electrician
R. R. Trav'g Fireman	Mining Engineer
Locomotive Engineer	Mine Foreman
Air-Brake Instructor	Foreman Machinist
Air-Brake Inspector	Chemist
Air-Brake Repairman	Assayer
Mechanical Engineer	Architect
Mechanical Draftsman	Bookkeeper
R. R. Construction Eng.	Stenographer
Surveyor	Advertising Man
Civil Engineer	Automobile Running
Banking	Concrete Construction

Name _____

Employed by _____ R. R.

Employed as _____

Street and No. _____

City _____ State _____

Steaming Hot

When you begin to think it's a personal matter between you and the sun to see which is the hotter, it's high time you bought yourself

A Glass of

Coca-Cola

TRADE MARK REGISTERED

Positively, it's a liquid breeze that blows away heat and thirst and fatigue and touches particular palates with vigorous deliciousness.

DELICIOUS — REFRESHING
THIRST-QUENCHING

5c Everywhere

Send for our interesting booklet, "The Truth About Coca-Cola"

The Coca-Cola Company
ATLANTA, GA.

Whenever you see an Arrow think of Coca-Cola

Compare Fairy with Other White Soaps

You will find that Fairy Soap is white and stays white, while the other so-called white soaps will turn yellow with age. Fairy has a delicate, refreshing smell, while all other white soaps have a greasy, soapy odor. Fairy is made in the handy, oval cake which just fits the hand, while the others cling with old-fogy tenacity to the awkward, oblong, out-of-date bar which has to be cut in two to be handled at all.

And when it comes to quality and price—Fairy is just as good as it looks and costs but 5c.

THE N. K. FAIRBANK COMPANY
CHICAGO

"Have You a little 'Fairy' in Your Home?"

"Oh! Look Who's Here"

MADE FROM SELECTED WHITE CORN. NONE GENUINE WITHOUT THIS SIGNATURE

W. K. Kellogg

KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich.

Canadian Trade Supplied by the Battle Creek Toasted Corn Flake Co., Ltd., London, Ont.

COPYRIGHT 1910 BY KELLOGG TOASTED CORN FLAKE CO.